STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL	1. WELL NAME and NUMBER: NBU 921-25IT
2. TYPE OF WORK: DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○	3. FIELD OR WILDCAT: NATURAL BUTTES
4. TYPE OF WELL: Not Available Coalbed Methane Well: NO	5. UNIT or COMMUNITIZATION AGREEMENT NAME: NATURAL BUTTES
6. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. OPERATOR PHONE: 720 929-6007
8. ADDRESS OF OPERATOR: P.O. Box 173779, Denver, CO, 80217	9. OPERATOR E-MAIL: Kathy.SchneebeckDulnoan@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE): UO 0868 ST	11. MINERAL OWNERSHIP: FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
	12. SURFACE OWNERSHIP: FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
13. NAME OF SURFACE OWNER (if box 12 = 'fee')	14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')	16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS: YES ◉ (Submit Commingling Application) NO ○
	19. SLANT: VERTICAL ◉ DIRECTIONAL ○ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	2064 FSL 689 FEL	NESE	25	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	2064 FSL 689 FEL	NESE	25	9.0 S	21.0 E	S
At Total Depth	2064 FSL 689 FEL	NESE	25	9.0 S	21.0 E	S

21. COUNTY	22. DISTANCE TO NEAREST LEASE LINE (Feet)	23. NUMBER OF ACRES IN DRILLING UNIT
UINTAH	689	80
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed): 91	26. PROPOSED DEPTH: MD: 9598 TVD: 9598
27. ELEVATION - GROUND LEVEL: 4983	28. BOND NUMBER: 22013542	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE: Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	☑ COMPLETE DRILLING PLAN
☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
☐ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	☑ TOPOGRAPHICAL MAP

NAME: Danielle Piernot	TITLE: Regulatory Analyst	PHONE: 720 929-6156
SIGNATURE	DATE: 08/17/2010	EMAIL: gnbregulatory@anadarko.com

API NUMBER ASSIGNED	APPROVAL
43047512730000	Permit Manager

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	9598		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 Buttress	9598	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	11	8.625	0	2370		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 LT&C	2370	28.0			

'APIWellNo:43047512730000'

NBU 921-25IT
Monitor Well
Pad: NBU 921-25I
2,064' FSL 689' FEL (NE/4SE/4)
Section 25 T9S R21E

Uintah County, Utah
Mineral Lease: UO 0868 ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,460'	
Birds Nest	1,743'	Water
Mahogany	2,121'	Water
Wasatch	4,702'	Gas
Mesaverde	7,353'	Gas
MVU2	8,296'	Gas
MVL1	8,844'	Gas
TD	9,598'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 9,598' TD, approximately equals 5,681 psi (calculated at 0.59 psi/foot).

Maximum anticipated surface pressure equals approximately 3,569 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background
In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

'APIWellNo:43047512730000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	August 17, 2010	
WELL NAME	**NBU 921-25IT**		TD	9,598' MD/TVD	
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	4,980'
SURFACE LOCATION	NE/4 SE/4 2,064' FSL 689' FEL	Sec 25 T 9S R 21E		BHL	Straight Hole
	Latitude: 40.005435	Longitude: -109.492428	NAD 27		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (MINERALS), SITLA (SURFACE), UDOGM, Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'	14"		
			11"	8-5/8", 28#, IJ-55, LTC	Air mist

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @	1,460'
Top of Birds Nest Water @	1,743'
Mahogany @	2,121'
Preset f/ GL @	2,370' MD

Note: 11" surface hole will usually be drilled ±400' below the bottom of lost circulation zone. Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Mud logging program TBD

Open hole logging program from TD - surf csg

		7-7/8"	4-1/2" 11.6# I-80 or equivalent LTC casing	Water/Fresh Water Mud 8.3-11.6 ppg

Wasatch @	4,702'
Mverde @	7,353'
MVU2 @	8,296'
MVL1 @	8,844'
TD @	9,598'

Max anticipated Mud required 11.6 ppg

'APIWellNo:43047512730000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						3,390	1,880	348,000
SURFACE	8-5/8"	0 to 2370	28.00	IJ-55	LTC	0.92	1.69	5.19
						7,780	6,350	201,000
PRODUCTION	4-1/2"	0 to 9598	11.60	I-80	LTC	2.12	1.10	2.07

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.27

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,569 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 5,681 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ .25 pps flocele				
	TOP OUT CMT (6 jobs)	1200	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + .25 pps flocele				
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
Option 2	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	140	35%	11.00	3.82
			+.25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,198'	Premium Lite II + 3% KCl + 0.25 pps	320	20%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,400'	50/50 Poz/G + 10% salt + 2% gel	1,140	20%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

DRILLING ENGINEER: _____ **DATE:** _____

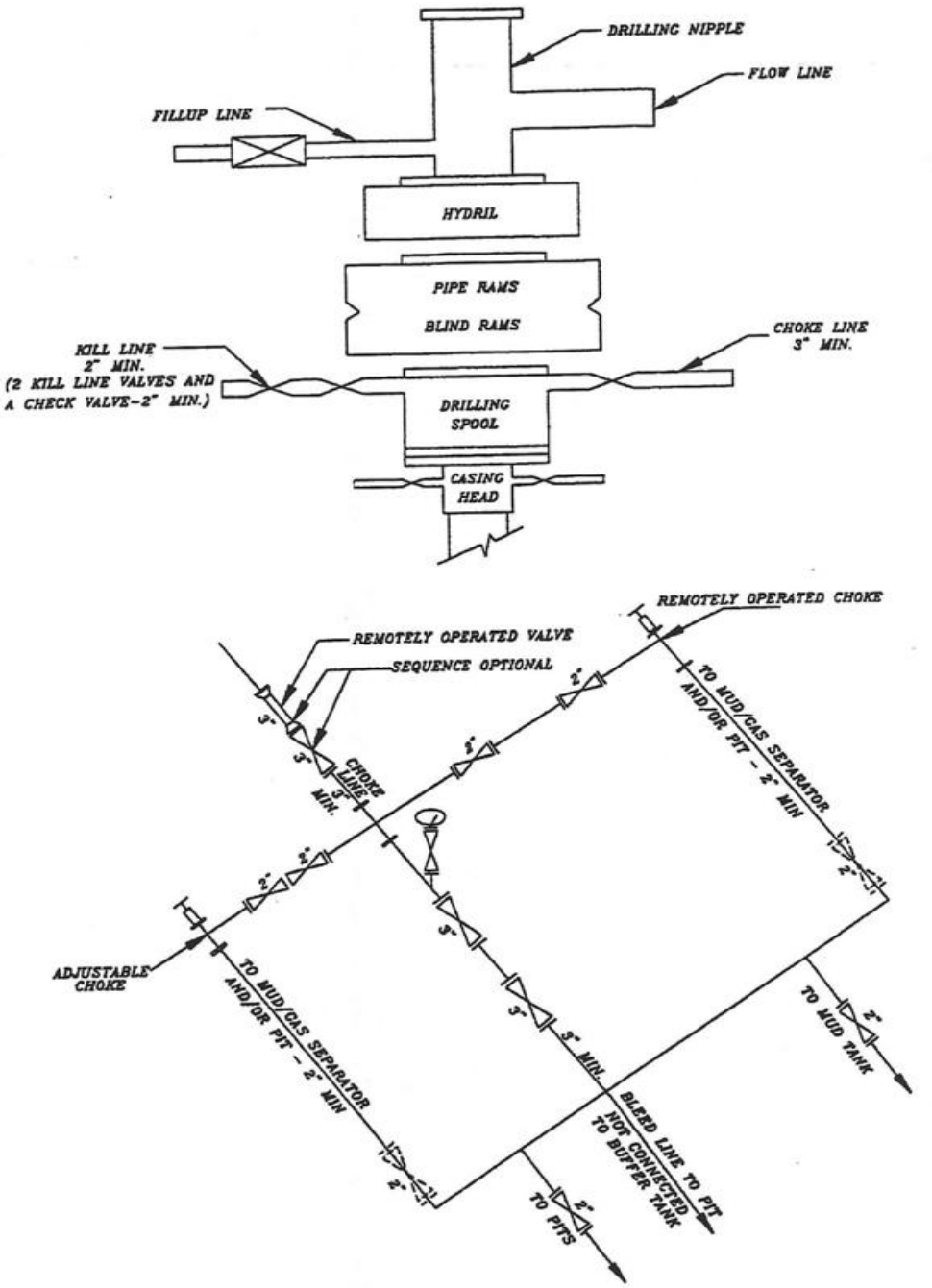
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____

John Merkel / Lovel Young

'APIWellNo:43047512730000'

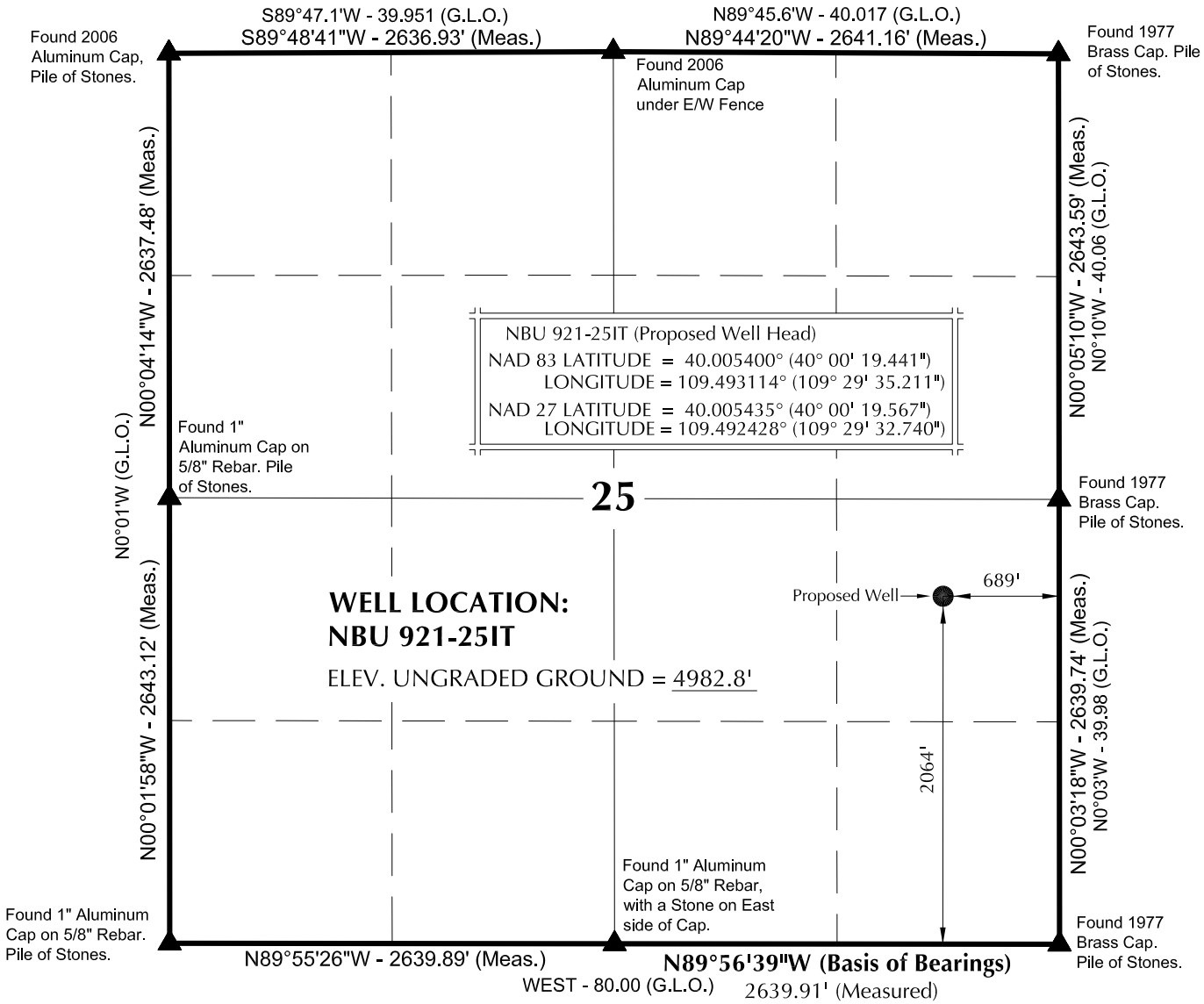
EXHIBIT A
NBU 921-25IT



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

'APIWellNo:43047512730000'

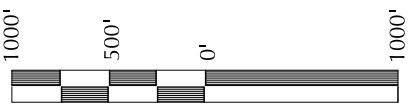
T9S, R21E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. Bearings are based on Global Positioning Satellite observations.
4. Basis of elevation is Tri-Sta "Two Water" located in the NW $\frac{1}{4}$ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SCALE

N

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

PROFESSIONAL LAND SURVEYOR No.6028691 JOHN R SLAUGH STATE OF UTAH

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD: NBU 921-25I

NBU 921-25IT
WELL PLAT
2064' FSL, 689' FEL
NE $\frac{1}{4}$ SE $\frac{1}{4}$ OF SECTION 25, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

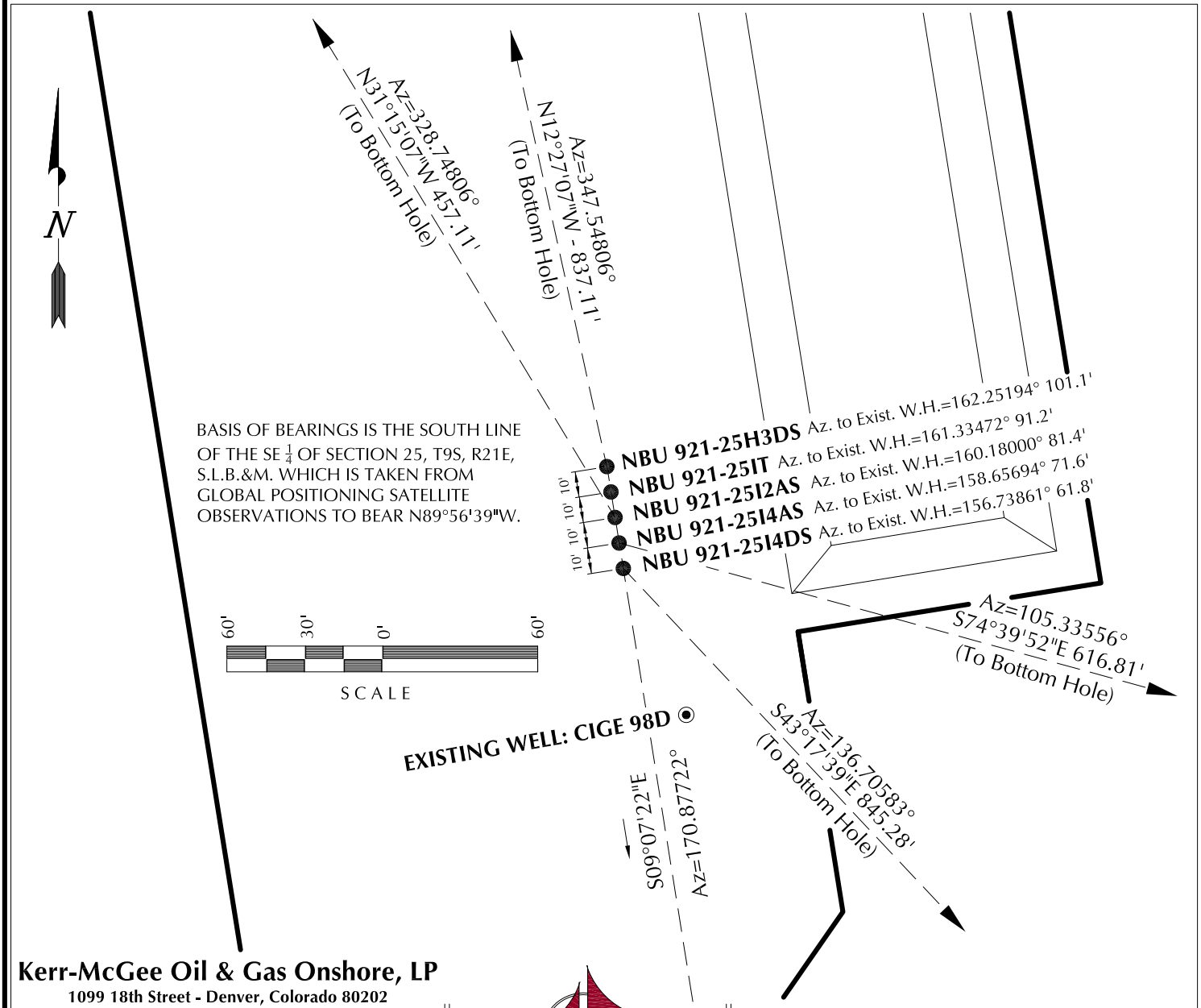
DATE SURVEYED: 04-01-10	SURVEYED BY: D.J.S.	SHEET NO: 4
DATE DRAWN: 08-04-10	DRAWN BY: M.W.W.	4 OF 17
SCALE: 1" = 1000'	Date Last Revised:	

'APIWellNo:43047512730000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 921-25I4DS	40°00'19.147" 40.005319°	109°29'35.149" 109.493097°	40°00'19.274" 40.005354°	109°29'32.678" 109.492411°	2035' FSL 684' FEL	40°00'13.071" 40.003631°	109°29'27.699" 109.491028°	40°00'13.197" 40.003666°	109°29'25.229" 109.490341°	1420' FSL 105' FEL
NBU 921-25I4AS	40°00'19.245" 40.005346°	109°29'35.170" 109.493103°	40°00'19.371" 40.005381°	109°29'32.699" 109.492417°	2045' FSL 686' FEL	40°00'17.635" 40.004899°	109°29'27.527" 109.490980°	40°00'17.761" 40.004934°	109°29'25.057" 109.490294°	1882' FSL 91' FEL
NBU 921-25I2AS	40°00'19.343" 40.005373°	109°29'35.190" 109.493108°	40°00'19.469" 40.005408°	109°29'32.719" 109.492422°	2054' FSL 687' FEL	40°00'23.203" 40.006445°	109°29'38.238" 109.493955°	40°00'23.329" 40.006480°	109°29'35.768" 109.493269°	2445' FSL 924' FEL
NBU 921-25IT	40°00'19.441" 40.005400°	109°29'35.211" 109.493114°	40°00'19.567" 40.005435°	109°29'32.740" 109.492428°	2064' FSL 689' FEL					
NBU 921-25H3DS	40°00'19.538" 40.005427°	109°29'35.231" 109.493120°	40°00'19.664" 40.005462°	109°29'32.761" 109.492434°	2074' FSL 690' FEL	40°00'27.613" 40.007670°	109°29'37.554" 109.493765°	40°00'27.739" 40.007705°	109°29'35.083" 109.493079°	2395' FNL 870' FEL
CIGE 98D	40°00'18.587" 40.005163°	109°29'34.835" 109.493010°	40°00'18.713" 40.005198°	109°29'32.365" 109.492324°	1978' FSL 660' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 921-25I4DS	-615.2'	579.6'	NBU 921-25I4AS	-163.1'	594.8'	NBU 921-25I2AS	390.8'	-237.1'	NBU 921-25H3DS	817.4'	-180.5'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

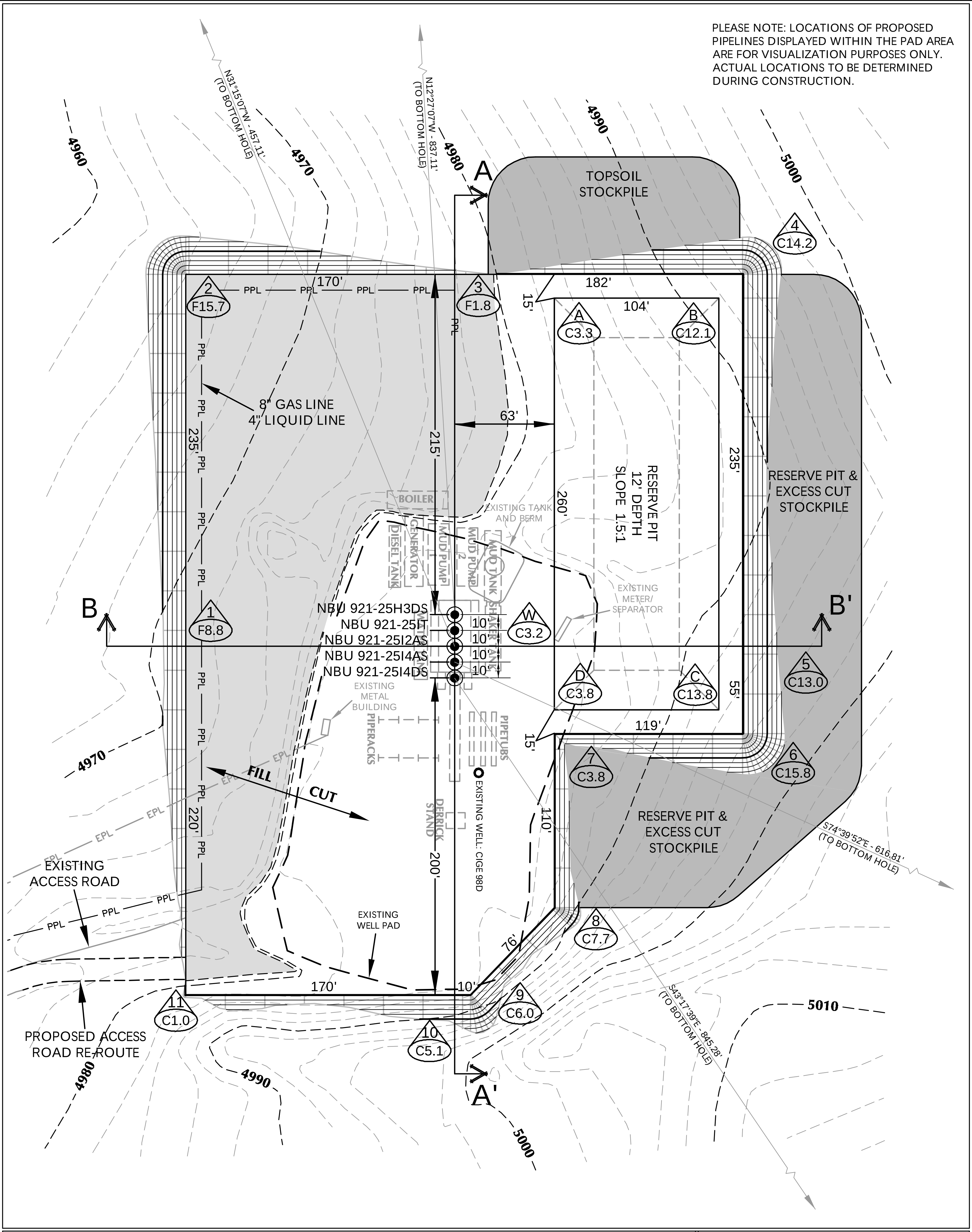
WELL PAD INTERFERENCE PLAT
WELLS - NBU 921-25I4DS, NBU 921-25I4AS, NBU 921-25I2AS, NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 04-01-10	SURVEYED BY: D.J.S.	SHEET NO: 6
DATE DRAWN: 04-05-10	DRAWN BY: E.M.S.	6 OF 17
SCALE: 1" = 60'	Date Last Revised: 08-04-10 M.W.W.	

'APIWellNo:43047512730000'



WELL PAD - NBU 921-25I DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4982.9'
FINISHED GRADE ELEVATION = 4979.7'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.75 ACRES
TOTAL DAMAGE AREA = 6.28 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 16,473 C.Y.
TOTAL FILL FOR WELL PAD = 15,678 C.Y.
TOPSOIL @ 6" DEPTH = 2,230 C.Y.
EXCESS MATERIAL = 795 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 9,300 CY
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 35,480 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

WELL PAD - LOCATION LAYOUT
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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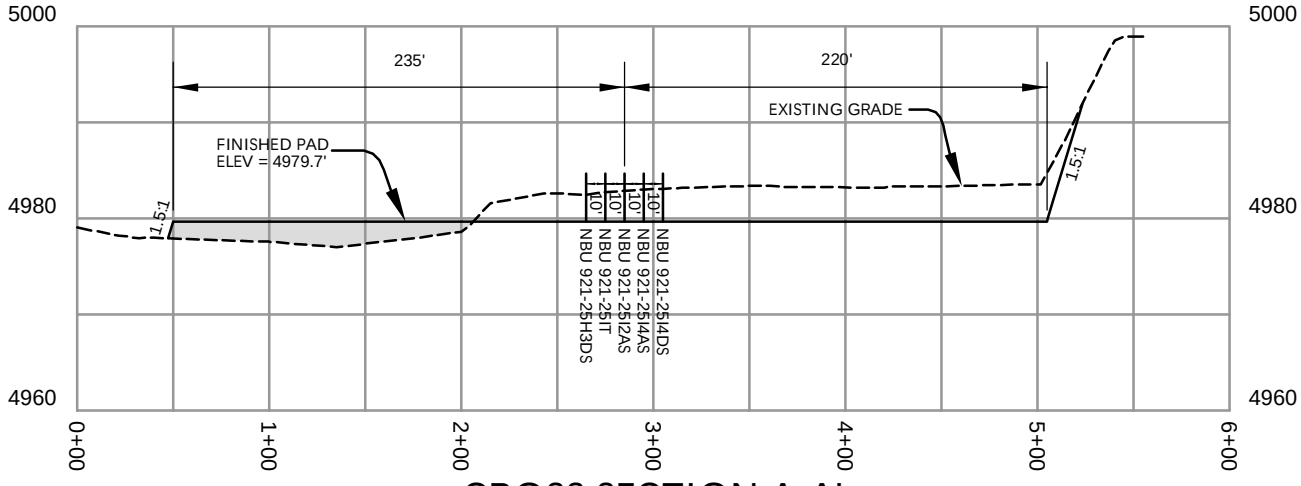
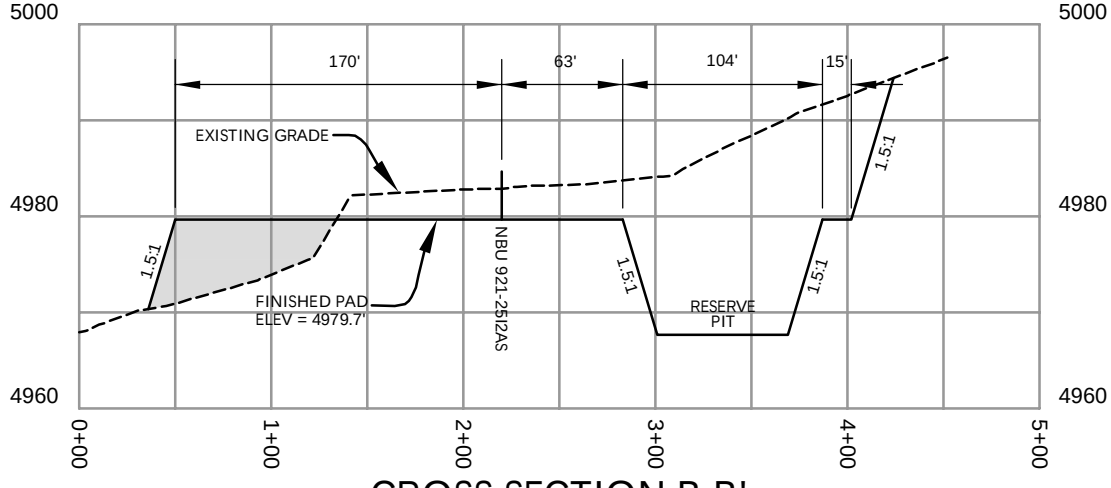
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=60'	Date: 5/13/10	SHEET NO: 7
REVISED:	TAR 8/10/10	7 OF 17

K:\ANADARKO\2010_34_NBU_FOCUS_SEC_921-25\DWGS\NBU 921-25I\921-25I_20100614.dwg



CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

WELL PAD - CROSS SECTIONS
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

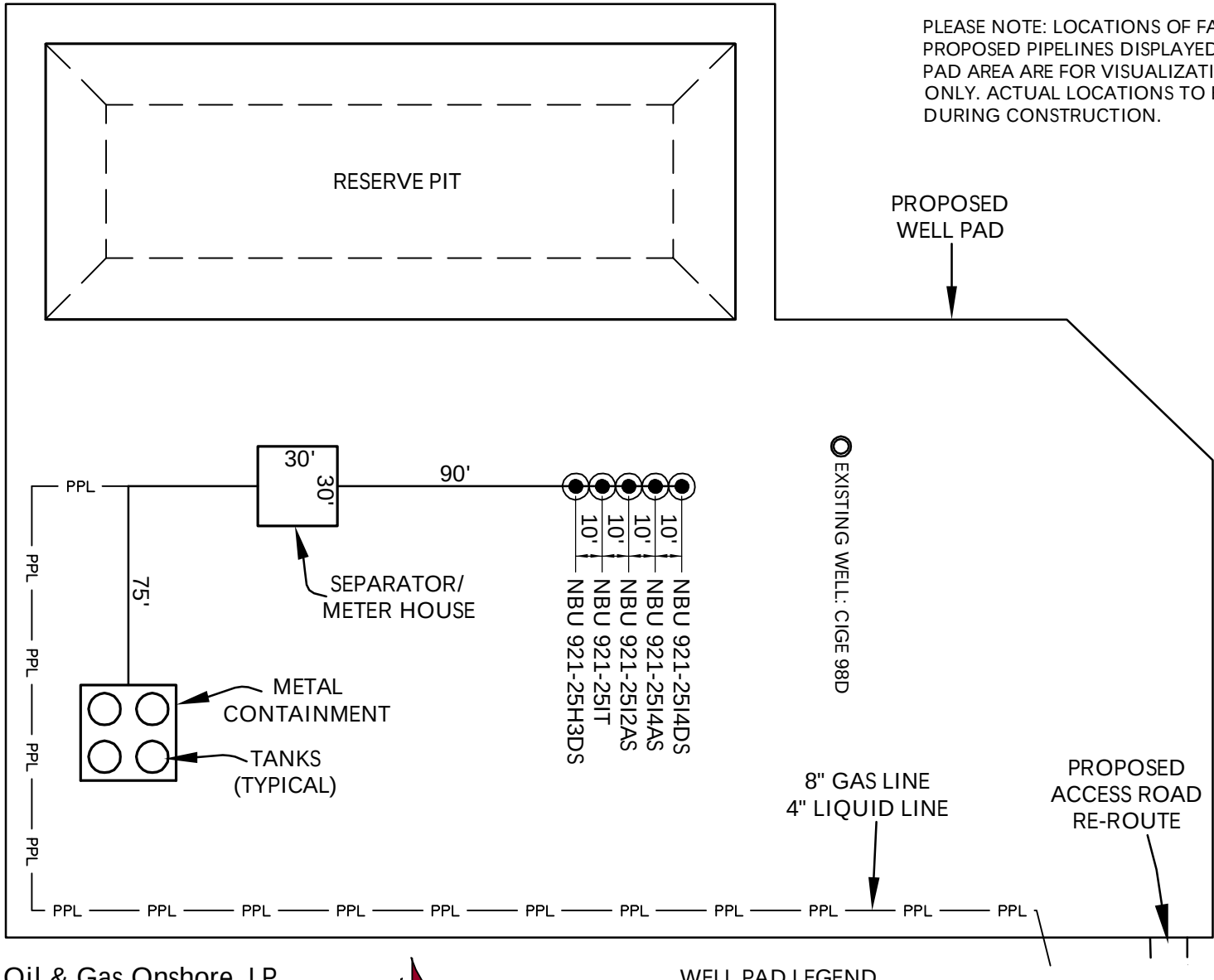
HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=100' Date: 5/14/10 SHEET NO:
REVISED: TAR 8/10/10
8 8 OF 17

'API WellNo:43047512730000'
K:\ANADARKO \2010_34_NBU_FOCUS_SEC_921-25\DWGS\NBU 921-25I\921-25I_20100614.dwg

PLEASE NOTE: LOCATIONS OF FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

WELL PAD - FACILITIES DIAGRAM
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
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Phone 307-674-0609
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WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60'
1" = 60'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale:	1"=60'	Date:	5/13/10	SHEET NO:
REVISED:		TAR 8/10/10		9 9 OF 17

'APIWellNo:43047512730000'
K:\ANADARKO \2010_34_NBU_FOCUS_SEC_921-25\DWGS\NBU 921-25I\921-25I_20100614.dwg

'APIWellNo:43047512730000'

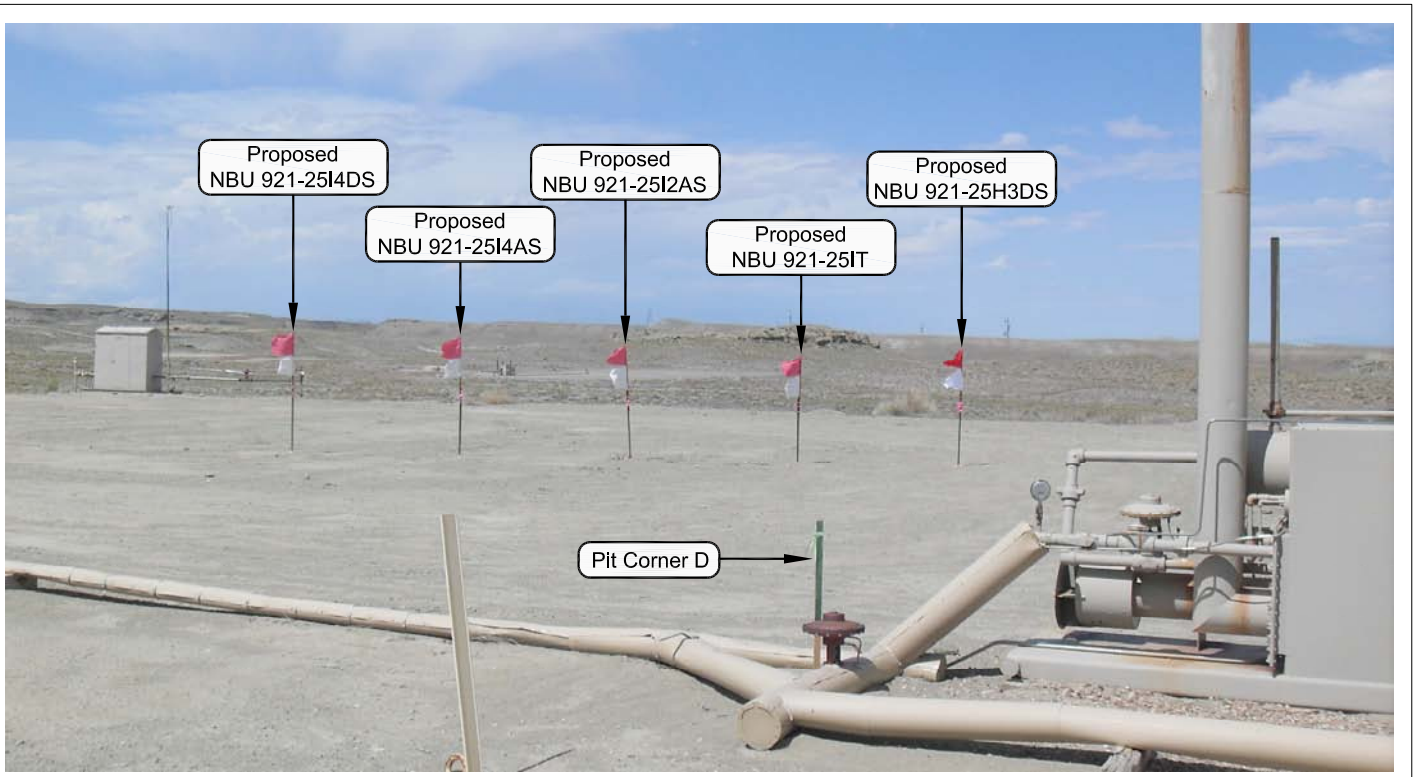


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE **CAMERA ANGLE: NORTHWESTERLY**

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD **CAMERA ANGLE: EASTERLY**

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

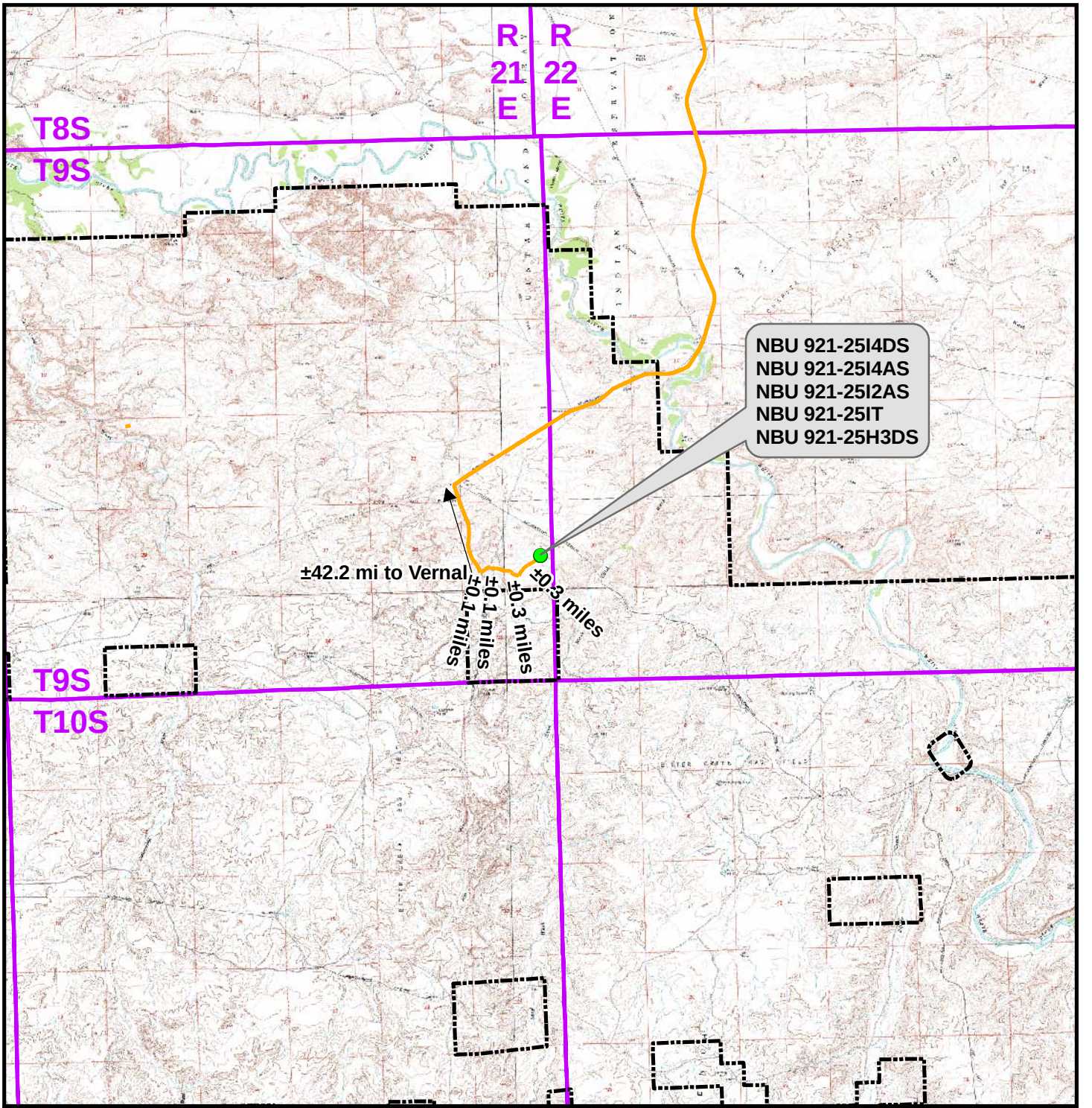
LOCATION PHOTOS
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 04-01-10	PHOTOS TAKEN BY: D.J.S.	SHEET NO: 10
DATE DRAWN: 04-05-10	DRAWN BY: E.M.S.	10 OF 17
Date Last Revised: 08-04-10 M.W.W.		

'APIWellNo:43047512730000'



Legend

Distance From Well Pad - NBU 921-25I To Unit Boundary: ±2,035ft

- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

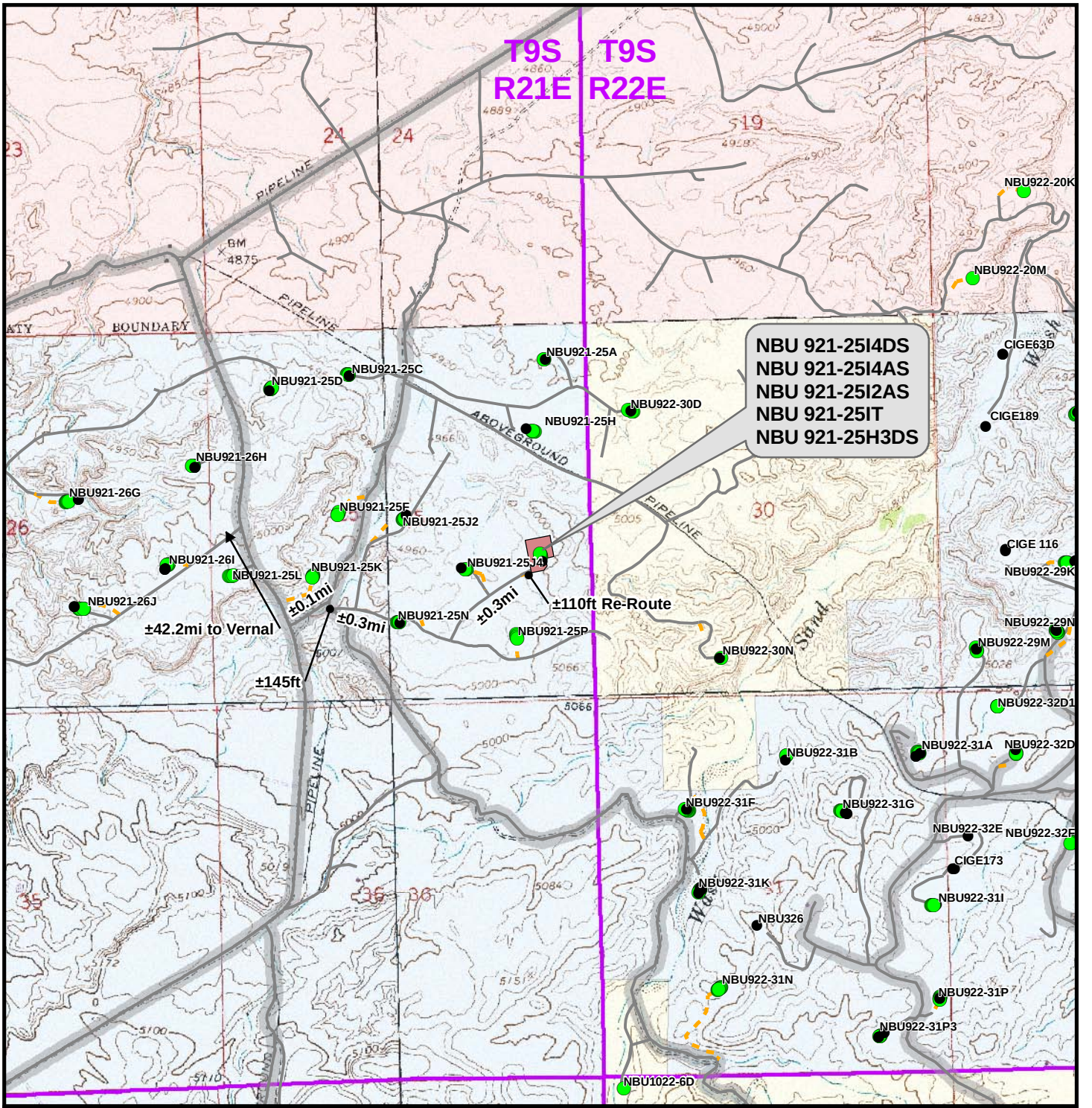
TOPO A
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central	Sheet No: 11	11 of 17
Drawn: CPS	Date: 14 May 2010		
Revised: KGS	Date: 10 Aug 2010		

'APIWellNo:43047512730000'



Legend

Total Proposed Road Re-Route Length: ±110ft

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

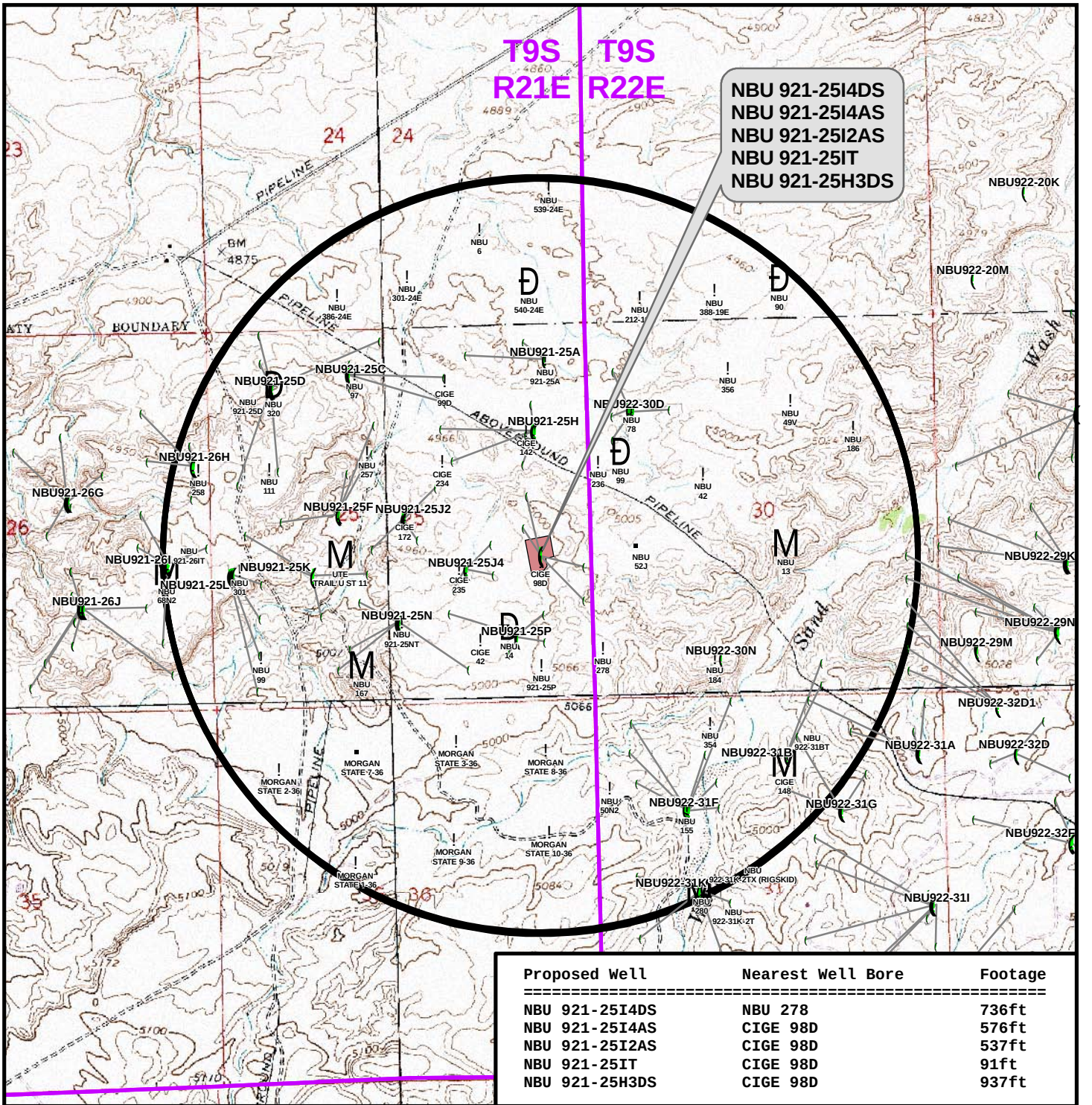
TOPO B
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 12	12 of 17
Drawn: CPS	Date: 14 May 2010		
Revised: KGS	Date: 10 Aug 2010		

'APIWellNo:43047512730000'



Proposed Well	Nearest Well Bore	Footage
NBU 921-25I4DS	NBU 278	736ft
NBU 921-25I4AS	CIGE 98D	576ft
NBU 921-25I2AS	CIGE 98D	537ft
NBU 921-25IT	CIGE 98D	91ft
NBU 921-25H3DS	CIGE 98D	937ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Well Path
- Well Pad
- Well - 1 Mile Radius

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

- Producing
- Active
- Spudded (Drilling commenced: Not yet completed)
- Approved permit (APD); not yet spudded
- New Permit (Not yet approved or drilled)
- Inactive
- Drilling Operations Suspended
- Temporarily-Abandoned
- Shut-In
- Plugged and Abandoned
- Location Abandoned
- Dry hole marker, buried
- Returned APD (Unapproved)

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

TOPO C
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

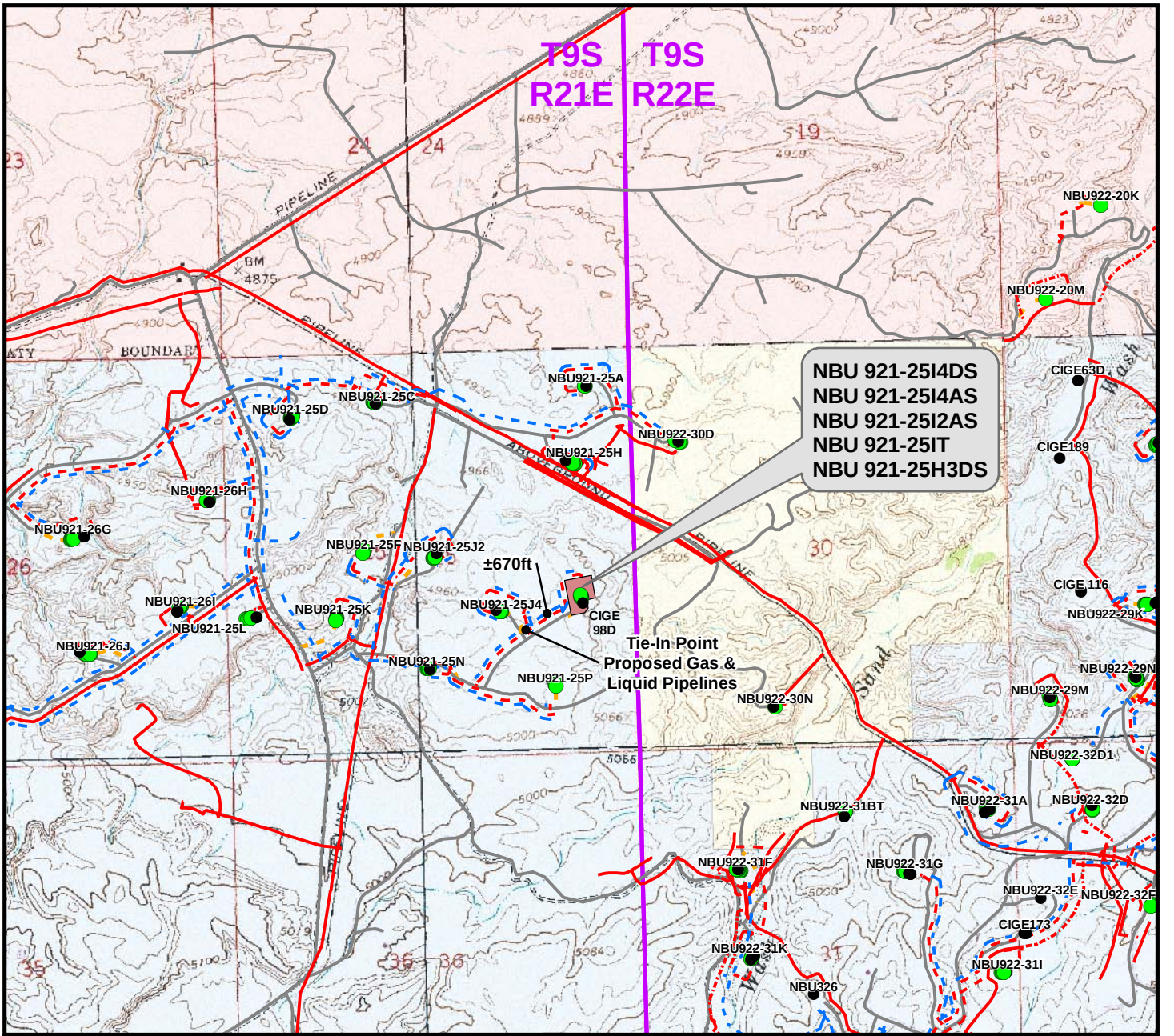
609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

Scale: 1" = 2,000ft | NAD83 USP Central

Drawn: CPS Date: 14 May 2010
Revised: KGS Date: 10 Aug 2010

Sheet No: 13 of 17

'APIWellNo:43047512730000'



Proposed Liquid Pipeline	Length
Proposed 4" (Meter House to Edge of Pad)	±670ft
Proposed 4" (Edge of Pad to 25J Intersection)	±670ft
TOTAL PROPOSED LIQUID PIPELINE =	± 1,340ft

Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±670ft
Proposed 8" (Edge of Pad to 25J Intersection)	±670ft
TOTAL PROPOSED GAS PIPELINE =	±1,340ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

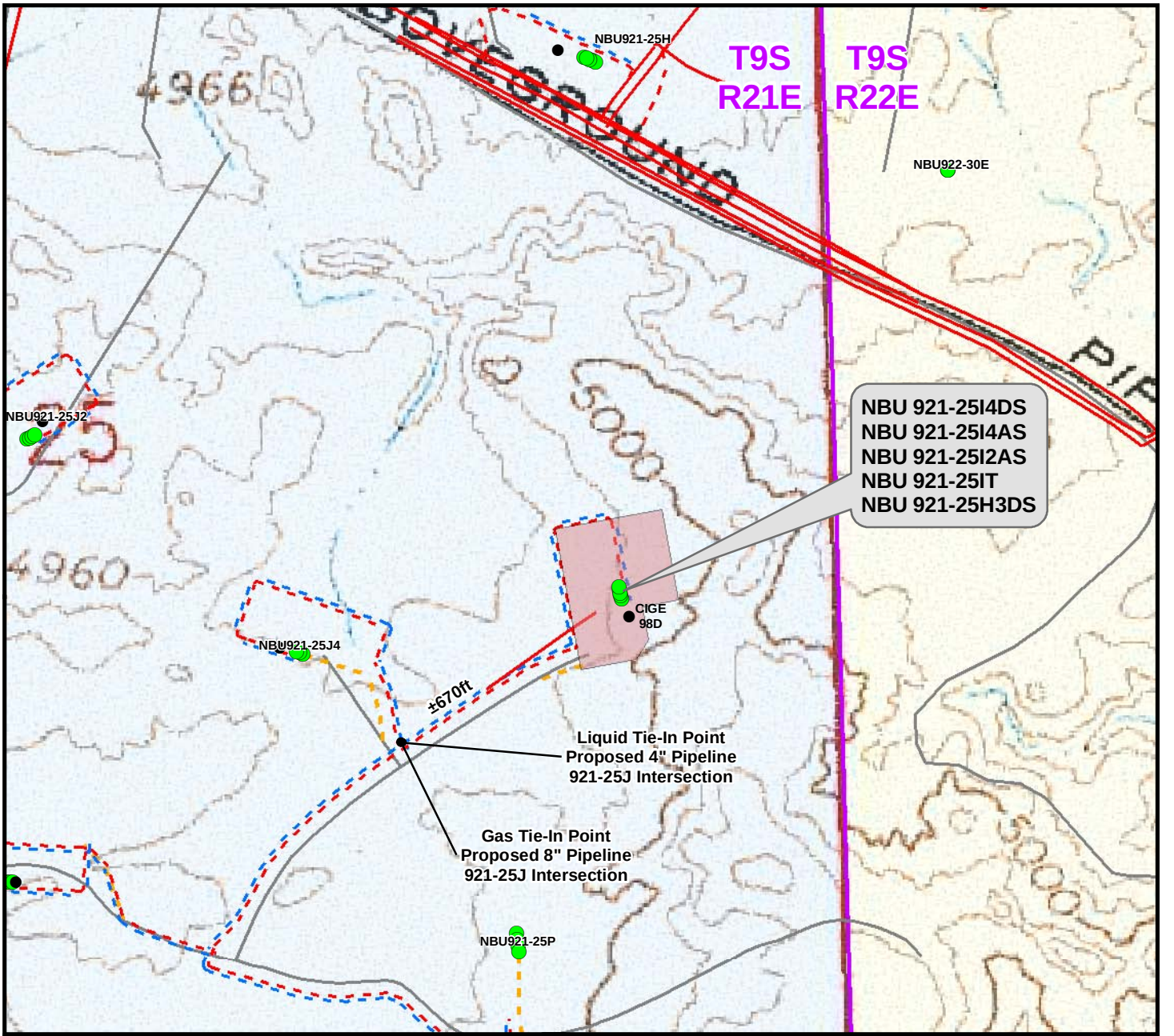
TOPO D
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 14	14 of 17
Drawn: CPS	Date: 14 May 2010		
Revised: KGS	Date: 10 Aug 2010		

'APIWellNo:43047512730000'



Proposed Liquid Pipeline	Length
Proposed 4" (Meter House to Edge of Pad)	±670ft
Proposed 4" (Edge of Pad to 25J Intersection)	±670ft
TOTAL PROPOSED LIQUID PIPELINE =	± 1,340ft

Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±670ft
Proposed 8" (Edge of Pad to 25J Intersection)	±670ft
TOTAL PROPOSED GAS PIPELINE =	±1,340ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

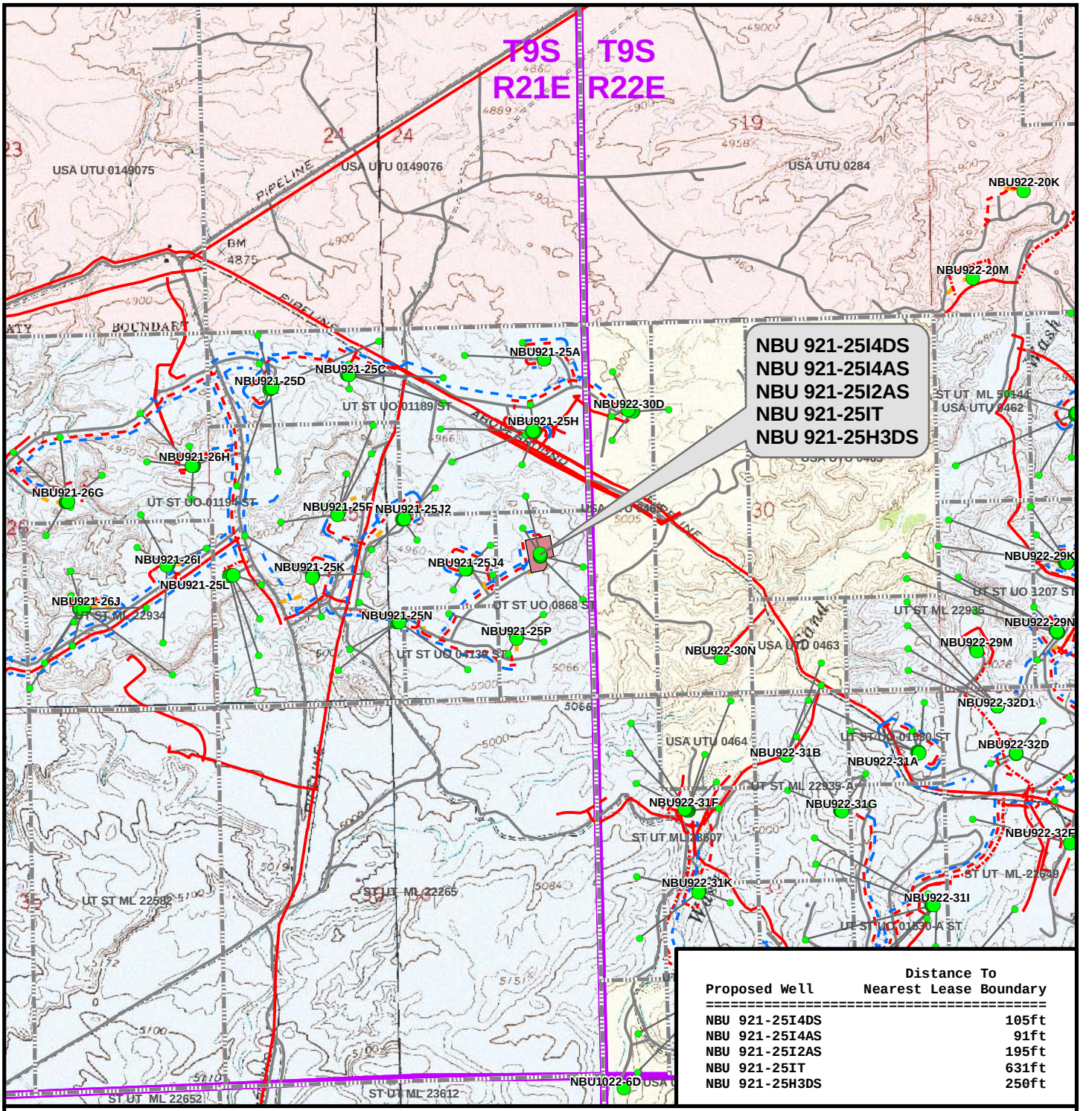
609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 500ft | NAD83 USP Central | Sheet No: 15

Drawn: CPS Date: 14 May 2010
Revised: KGS Date: 10 Aug 2010

'APIWellNo:43047512730000'



Proposed Well	Distance To Nearest Lease Boundary
NBU 921-25I4DS	105ft
NBU 921-25I4AS	91ft
NBU 921-25I2AS	195ft
NBU 921-25IT	631ft
NBU 921-25H3DS	250ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

TOPO E
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25IT & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft | NAD83 USP Central | Sheet No: 16 of 17

Drawn: CPS Date: 14 May 2010
Revised: KGS Date: 10 Aug 2010

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 921-25I
WELLS – NBU 921-25I4DS, NBU 921-25I4AS,
NBU 921-25I2AS, NBU 921-25IT & NBU 921-25H3DS
Section 25, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 145 feet to a service road to the east. Exit left and proceed in an easterly then southeasterly direction along service road approximately 0.3 miles to a second service road to the northeast. Exit left and proceed in a northeasterly direction along the second service road approximately 0.3 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 42.9 miles in a southerly direction.

'APIWellNo:43047512730000'

NBU 921-25H3DS
Surface: 2,074’ FSL 690’ FEL (NE/4SE/4)
BHL: 2,395’ FNL 870’ FEL (SE/4NE/4)
Mineral Lease: UO 1189 ST

NBU 921-25I2AS
Surface: 2,054’ FSL 687’ FEL (NE/4SE/4)
BHL: 2,445’ FSL 924’ FEL (NE/4SE/4)
Mineral Lease: UO 0868 ST

NBU 921-25I4AS
Surface: 2,045’ FSL 686’ FEL (NE/4SE/4)
BHL: 1,882’ FSL 91’ FEL (NE/4SE/4)
Mineral Lease: UO 0868 ST

NBU 921-25I4DS
Surface: 2,035’ FSL 684’ FEL (NE/4SE/4)
BHL: 1,420’ FSL 105’ FEL (NE/4SE/4)
Mineral Lease: UO 0868 ST

NBU 921-25IT
Monitor Well
2,064’ FSL 689’ FEL (NE/4SE/4)
Mineral Lease: UO 0868 ST

Pad: NBU 921-25I
Section 25 T9S R21E

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. <u>Existing Roads</u>:

Existing roads consist of county roads and improved/unimproved lease roads. APC/KMG will maintain

existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

Approximately ±110' (0.02 miles) of road re-route to this pad location is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

Where roads are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

Turnouts; major cut and fills; culverts; bridges; gates; cattle guards; low water crossings; or modifications needed to existing infrastructure/facilities were determined at the on-site and, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the CIGE 98D, which is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of August 16, 2010.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of each well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) aboveground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM.
Gathering facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is ±1,340' and the individual segments are broken up as follows:

±670' (0.1 miles) –New 8" buried gas pipeline from the meter to the edge of the pad.
±670' (0.1 miles) –New 8" buried gas pipeline from the edge of pad to the NBU 921-25J pad intersection.

The total liquid gathering pipeline distance from the meter to the tie in point is ±1,340' and the individual segments are broken up as follows:

±670' (0.1 miles) –New 4" buried liquid pipeline from the meter to the edge of the pad.
±670' (0.1 miles) –New 4" buried liquid pipeline from the edge of pad to the NBU 921-25J pad intersection.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. Kerr-McGee requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, Kerr-McGee requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.
No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods of Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should

petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary to subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, accidental release, or in excess of reportable quantities will be managed according to the notification requirements of UDOGMs “Reporting Oil and Gas Undesirable Events” rule, and, where State wells are participatory to a Federal agreement, according to NTL-3A.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

Please note that the NBU 921-25IT well is going to be developed as a pressure monitoring well.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1983 (NAD83) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by APC/KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

K. Other Information:

A Class I literature survey was conducted by Montgomery Archaeological Consultants, Inc. (MOAC). For additional details please refer to report MOAC 10-125

A paleontological reconnaissance has been conducted by Intermountain Paleo-Consulting (IPC) and a report will be submitted under separate cover.

A biological field survey was completed by Grasslands Consulting, Inc. on July 13, 2010. For additional details please refer to report GCI-291.

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

August 16, 2010
Date

'APIWellNo:43047512730000'

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 36 PROPOSED WELL LOCATIONS IN T9S, R21E, SECTION 25 (MOAC Report No. 10-125) UINTAH COUNTY, UTAH

By:

Nicole Shelnut

Prepared For:

State of Utah
School and Institutional Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 10-125

July 26, 2010

State of Utah Public Lands Policy Coordination Office
Permit No. 117

United States Department of Interior (FLPMA)
Permit No. 10-UT-60122

Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237
(303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report Number: GCI #291

Report Date: August 3, 2010

Operator: Kerr-McGee Oil & Gas Onshore LP

Well: NBU 921-25I well pad (Bores: NBU 921-25H3DS, NBU 921-25I2AS, NBU 921-25I4AS, NBU 921-25I4DS, and NBU 921-25IT)

Pipeline: Associated pipeline leading to proposed well pad

Access Road: Associated road leading to proposed well pad

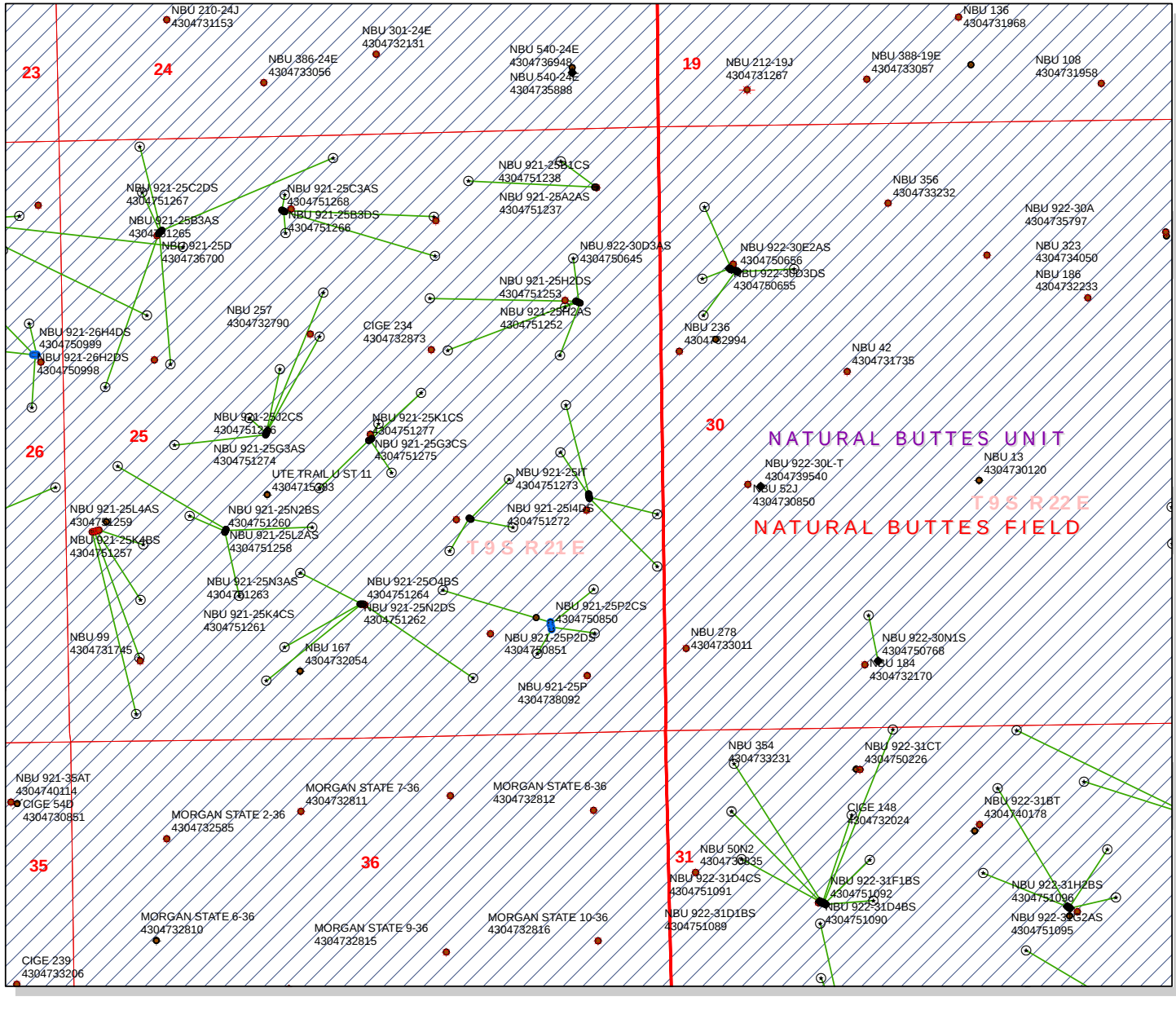
Location: Section 25, Township 9 South, Range 21 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*)

Survey Date: July 13, 2010

Observers: Grasslands Consulting, Inc. Biologists: Brad Snopek, Jennie Sinclair, Jonathan Sexauer, Adrienne Cunningham, Garrett Peterson and field technicians.

'APIWellNo:43047512730000'



API Number: 4304751273

Well Name: NBU 921-25IT

Township 09.0 S Range 21.0 E Section 25

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

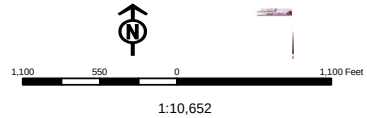
Units

STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields
- Sections
- Township
- Bottom Hole Location - AGRC

Wells Query
- <all other values>

Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well



1:10,652

'APIWellNo:43047512730000'

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

August 17, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-25A Pad

43-047-51237 NBU 921-25A2AS Sec 25 T09S R21E 0489 FNL 0565 FEL
BHL Sec 25 T09S R21E 0252 FNL 0865 FEL

43-047-51238 NBU 921-25B1CS Sec 25 T09S R21E 0489 FNL 0575 FEL
BHL Sec 25 T09S R21E 0416 FNL 1676 FEL

NBU 921-25D Pad

43-047-51239 NBU 921-25C1AS Sec 25 T09S R21E 0800 FNL 0893 FWL
BHL Sec 25 T09S R21E 0190 FNL 2405 FWL

43-047-51240 NBU 921-25D1BS Sec 25 T09S R21E 0807 FNL 0885 FWL
BHL Sec 25 T09S R21E 0060 FNL 0716 FWL

43-047-51241 NBU 921-25E1CS Sec 25 T09S R21E 0821 FNL 0871 FWL
BHL Sec 25 T09S R21E 1976 FNL 0947 FWL

43-047-51242 NBU 921-25E3AS Sec 25 T09S R21E 0828 FNL 0864 FWL
BHL Sec 25 T09S R21E 2162 FNL 0371 FWL

43-047-51251 NBU 921-25D1CS Sec 25 T09S R21E 0814 FNL 0878 FWL
BHL Sec 25 T09S R21E 0460 FNL 0726 FWL

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-25F Pad

43-047-51243 NBU 921-25F1BS Sec 25 T09S R21E 2580 FNL 1780 FWL
BHL Sec 25 T09S R21E 1366 FNL 2296 FWL

43-047-51244 NBU 921-25F1CS Sec 25 T09S R21E 2571 FNL 1784 FWL
BHL Sec 25 T09S R21E 1754 FNL 2259 FWL

43-047-51245 NBU 921-25F3AS Sec 25 T09S R21E 2589 FNL 1776 FWL
BHL Sec 25 T09S R21E 2034 FNL 1905 FWL

43-047-51246 NBU 921-25F3CS Sec 25 T09S R21E 2598 FNL 1772 FWL
BHL Sec 25 T09S R21E 2461 FNL 1628 FWL

43-047-51247 NBU 921-25L1BS Sec 25 T09S R21E 2607 FNL 1768 FWL
BHL Sec 25 T09S R21E 2597 FSL 0969 FWL

NBU 921-25H Pad

43-047-51248 NBU 921-25A3DS Sec 25 T09S R21E 1498 FNL 0736 FEL
BHL Sec 25 T09S R21E 1110 FNL 0776 FEL

43-047-51249 NBU 921-25G1CS Sec 25 T09S R21E 1489 FNL 0754 FEL
BHL Sec 25 T09S R21E 1895 FNL 1893 FEL

43-047-51250 NBU 921-25G2AS Sec 25 T09S R21E 1484 FNL 0763 FEL
BHL Sec 25 T09S R21E 1439 FNL 2042 FEL

43-047-51252 NBU 921-25H2AS Sec 25 T09S R21E 1493 FNL 0745 FEL
BHL Sec 25 T09S R21E 1538 FNL 0857 FEL

43-047-51253 NBU 921-25H2DS Sec 25 T09S R21E 1502 FNL 0727 FEL
BHL Sec 25 T09S R21E 1958 FNL 0913 FEL

NBU 921-25J Pad

43-047-51254 NBU 921-25J4AS Sec 25 T09S R21E 1878 FSL 1725 FEL
BHL Sec 25 T09S R21E 1795 FSL 1360 FEL

43-047-51255 NBU 921-25J4CS Sec 25 T09S R21E 1886 FSL 1743 FEL
BHL Sec 25 T09S R21E 1604 FSL 1920 FEL

43-047-51256 NBU 921-25J1DS Sec 25 T09S R21E 1882 FSL 1734 FEL
BHL Sec 25 T09S R21E 2218 FSL 1381 FEL

NBU 921-25K Pad

43-047-51257 NBU 921-25K4BS Sec 25 T09S R21E 1838 FSL 1400 FWL
BHL Sec 25 T09S R21E 1848 FSL 2161 FWL

43-047-51258 NBU 921-25L2AS Sec 25 T09S R21E 1848 FSL 1402 FWL
BHL Sec 25 T09S R21E 2423 FSL 0465 FWL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51259	NBU 921-25L4AS	Sec 25 T09S R21E 1829 FSL 1397 FWL
		BHL Sec 25 T09S R21E 1975 FSL 1088 FWL
43-047-51260	NBU 921-25N2BS	Sec 25 T09S R21E 1819 FSL 1394 FWL
		BHL Sec 25 T09S R21E 1260 FSL 1508 FWL
NBU 921-25N Pad		
43-047-51261	NBU 921-25K4CS	Sec 25 T09S R21E 1157 FSL 2585 FWL
		BHL Sec 25 T09S R21E 1450 FSL 2045 FWL
43-047-51262	NBU 921-25N2DS	Sec 25 T09S R21E 1159 FSL 2565 FWL
		BHL Sec 25 T09S R21E 0800 FSL 1896 FWL
43-047-51263	NBU 921-25N3AS	Sec 25 T09S R21E 1158 FSL 2575 FWL
		BHL Sec 25 T09S R21E 0508 FSL 1729 FWL
43-047-51264	NBU 921-25O4BS	Sec 25 T09S R21E 1156 FSL 2595 FWL
		BHL Sec 25 T09S R21E 0485 FSL 1741 FEL
NBU 921-25C Pad		
43-047-51265	NBU 921-25B3AS	Sec 25 T09S R21E 0645 FNL 1955 FWL
		BHL Sec 25 T09S R21E 0720 FNL 1985 FEL
43-047-51266	NBU 921-25B3DS	Sec 25 T09S R21E 0654 FNL 1972 FWL
		BHL Sec 25 T09S R21E 1070 FNL 1985 FEL
43-047-51267	NBU 921-25C2DS	Sec 25 T09S R21E 0640 FNL 1946 FWL
		BHL Sec 25 T09S R21E 0504 FNL 1975 FWL
43-047-51268	NBU 921-25C3AS	Sec 25 T09S R21E 0650 FNL 1964 FWL
		BHL Sec 25 T09S R21E 0841 FNL 1975 FWL
NBU 921-25I Pad		
43-047-51269	NBU 921-25H3DS	Sec 25 T09S R21E 2074 FSL 0690 FEL
		BHL Sec 25 T09S R21E 2395 FNL 0870 FEL
43-047-51270	NBU 921-25I2AS	Sec 25 T09S R21E 2054 FSL 0687 FEL
		BHL Sec 25 T09S R21E 2445 FSL 0924 FEL
43-047-51271	NBU 921-25I4AS	Sec 25 T09S R21E 2045 FSL 0686 FEL
		BHL Sec 25 T09S R21E 1882 FSL 0091 FEL
43-047-51272	NBU 921-25I4DS	Sec 25 T09S R21E 2035 FSL 0684 FEL
		BHL Sec 25 T09S R21E 1420 FSL 0105 FEL
43-047-51273	NBU 921-25IT	Sec 25 T09S R21E 2064 FSL 0689 FEL
		BHL Sec 25 T09S R21E 2064 FSL 0689 FEL

'APIWellNo:43047512730000'

API #	WELL NAME	LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-25J2 Pad

43-047-51274 NBU 921-25G3AS Sec 25 T09S R21E 2611 FSL 2578 FEL
BHL Sec 25 T09S R21E 2265 FNL 2136 FEL

43-047-51275 NBU 921-25G3CS Sec 25 T09S R21E 2606 FSL 2587 FEL
BHL Sec 25 T09S R21E 2530 FNL 2518 FEL

43-047-51276 NBU 921-25J2CS Sec 25 T09S R21E 2601 FSL 2596 FEL
BHL Sec 25 T09S R21E 2310 FSL 2410 FEL

43-047-51277 NBU 921-25K1CS Sec 25 T09S R21E 2596 FSL 2605 FEL
BHL Sec 25 T09S R21E 2186 FSL 2231 FWL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2010.08.17 14:58:46 -06'00'

bcc: File – Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:8-17-10

'APIWellNo:43047512730000'

From: Jim Davis
To: Bonner, Ed; Garrison, LaVonne; Hill, Brad; Mason, Diana
CC: Bartlett, Floyd; Laura.Gianakos@anadarko.com; Piernot, Danielle; Upch...
Date: 9/2/2010 9:13 AM
Subject: SITLA approval of Kerr McGee wells
Attachments: KMG approvals and paleo 9.1.2010.xlsx

The following wells have been approved by SITLA including arch clearance. Paleo clearance is also granted with stipulations as noted.

Full Paleo monitoring: All ground-disturbing activities must be monitored by a permitted paleontologist.

NBU 922-29F4DS [API #4304751207]	Full Monitoring	IPC 10-08
NBU 922-29G4CS [API #4304751208]	Full Monitoring	IPC 10-08
NBU 922-29J4BS [API #4304751209]	Full Monitoring	IPC 10-08
NBU 922-29K1DS [API #4304751210]	Full Monitoring	IPC 10-08
NBU 922-29G1AS [API #4304751194]	Full Monitoring	IPC 10-06
NBU 922-29G1DS [API #4304751195]	Full Monitoring	IPC 10-06
NBU 922-29G2BS [API #4304751196]	Full Monitoring	IPC 10-06
NBU 922-29G3BS [API #4304751197]	Full Monitoring	IPC 10-06
NBU 921-25A3DS [API 4304751248]	Full Monitoring	IPC 10-21
NBU 921-25G1CS [API 4304751249]	Full Monitoring	IPC 10-21
NBU 921-25G2AS [API 4304751250]	Full Monitoring	IPC 10-21
NBU 921-25H2AS [API 4304751252]	Full Monitoring	IPC 10-21
NBU 921-25H2DS [API 4304751253]	Full Monitoring	IPC 10-21
NBU 921-25G3AS [API 4304751274]	Full Monitoring	IPC 10-23
NBU 921-25G3CS [API 4304751275]	Full Monitoring	IPC 10-23
NBU 921-25J2CS [API 4304751276]	Full Monitoring	IPC 10-23
NBU 921-25K1CS [API 4304751277]	Full Monitoring	IPC 10-23
NBU 921-25A2AS [API 4304751237]	Full Monitoring	IPC 10-21
NBU 921-25B1CS [API 4304751238]	Full Monitoring	IPC 10-21

Spot Paleo Monitoring: All ground-disturbing activities must be monitored by a permitted paleontologist at the beginning of construction and thereafter spot-monitored as paleontological conditions merit.

NBU 921-25C1AS [API 4304751239]	Spot Monitoring	IPC 10-20
NBU 921-25D1BS [API 4304751240]	Spot Monitoring	IPC 10-20
NBU 921-25D1CS [API 4304751251]	Spot Monitoring	IPC 10-20
NBU 921-25E1CS [API 4304751241]	Spot Monitoring	IPC 10-20
NBU 921-25E3AS [API 4304751242]	Spot Monitoring	IPC 10-20
NBU 921-25F1BS [API 4304751243]	Spot Monitoring	IPC 10-21
NBU 921-25F1CS [API 4304751244]	Spot Monitoring	IPC 10-21
NBU 921-25F3AS [API 4304751245]	Spot Monitoring	IPC 10-21
NBU 921-25F3CS [API 4304751246]	Spot Monitoring	IPC 10-21
NBU 921-25L1BS [API 4304751247]	Spot Monitoring	IPC 10-21
NBU 921-25J1DS [API 4304751256]	Spot Monitoring	IPC 10-23
NBU 921-25J4AS [API 4304751254]	Spot Monitoring	IPC 10-23
NBU 921-25J4CS [API 4304751255]	Spot Monitoring	IPC 10-23
NBU 921-25K4BS [API 4304751257]	Spot Monitoring	IPC 10-22
NBU 921-25L2AS [API 4304751258]	Spot Monitoring	IPC 10-22
NBU 921-25L4AS [API 4304751259]	Spot Monitoring	IPC 10-22
NBU 921-25N2BS [API 4304751260]	Spot Monitoring	IPC 10-22
NBU 921-25K4CS [API 4304751261]	Spot Monitoring	IPC 10-23
NBU 921-25N2DS [API 4304751262]	Spot Monitoring	IPC 10-23
NBU 921-25N3AS [API 4304751263]	Spot Monitoring	IPC 10-23

'APIWellNo:43047512730000'

NBU 921-25O4BS [API 4304751264] Spot Monitoring IPC 10-23
NBU 921-25B3AS [API 4304751265] Spot Monitoring IPC 10-20
NBU 921-25B3DS [API 4304751266] Spot Monitoring IPC 10-20
NBU 921-25C2DS [API 4304751267] Spot Monitoring IPC 10-20
NBU 921-25C3AS [API 4304751268] Spot Monitoring IPC 10-20
NBU 921-25IT [API 4304751273] Spot Monitoring IPC 10-23
NBU 921-25H3DS [API 4304751269] Spot Monitoring IPC 10-23
NBU 921-25I2AS [API 4304751270] Spot Monitoring IPC 10-23
NBU 921-25I4AS [API 4304751271] Spot Monitoring IPC 10-23
NBU 921-25I4DS [API 4304751272] Spot Monitoring IPC 10-23
NBU 922-29A1BS [API #4304751183] Spot Monitoring IPC 10-06
NBU 922-29A1CS [API #4304751184] Spot Monitoring IPC 10-06
NBU 922-29A4CS [API #4304751185] Spot Monitoring IPC 10-06
NBU 922-29H1BS [API #4304751186] Spot Monitoring IPC 10-06
NBU 922-29B2CS [API #4304751187] Spot Monitoring IPC 10-06

NBU 922-29B4AS [API #4304751188] Spot Monitoring IPC 10-06 (SITLA surf/ Fed Min)
NBU 922-29C2AS [API #4304751189] Spot Monitoring IPC 10-06 (SITLA surf/ Fed Min)

NBU 922-29C4AS [API #4304751190] Spot Monitoring IPC 10-06
NBU 922-29B1AS [API #4304751191] Spot Monitoring IPC 10-06
NBU 922-29B1DS [API #4304751192] Spot Monitoring IPC 10-06
NBU 922-29B2BS [API #4304751193] Spot Monitoring IPC 10-06
NBU 922-29D4DS [API #4304751198] Spot Monitoring IPC 10-05
NBU 922-29E3BS [API #4304751199] Spot Monitoring IPC 10-05
NBU 922-29F3AS [API #4304751200] Spot Monitoring IPC 10-05
NBU 922-29F3BS [API #4304751201] Spot Monitoring IPC 10-05
NBU 922-29G4AS [API #4304751202] Spot Monitoring IPC 10-06
NBU 922-29H1CS [API #4304751203] Spot Monitoring IPC 10-06
NBU 922-29H4CS [API #4304751204] Spot Monitoring IPC 10-06
NBU 922-29I1BS [API #4304751205] Spot Monitoring IPC 10-06
NBU 922-29I1CS [API #4304751206] Spot Monitoring IPC 10-06
NBU 922-29K2CS [API #4304751211] Spot Monitoring IPC 10-07
NBU 922-29K4AS [API #4304751212] Spot Monitoring IPC 10-07
NBU 922-29L1AS [API #4304751213] Spot Monitoring IPC 10-07
NBU 922-29L2BS [API #4304751214] Spot Monitoring IPC 10-07
NBU 922-29L2CS [API #4304751215] Spot Monitoring IPC 10-07
NBU 922-29L3CS [API #4304751216] Spot Monitoring IPC 10-07
NBU 922-29M2AS [API #4304751217] Spot Monitoring IPC 10-07
NBU 922-29N2BS [API #4304751218] Spot Monitoring IPC 10-07
NBU 922-29N3BS [API #4304751219] Spot Monitoring IPC 10-07

NBU 922-30I4BS [API #4304751220] Spot Monitoring IPC 10-07 (SITLA surf/ Fed Min)
NBU 922-30I4CS [API #4304751221] Spot Monitoring IPC 10-07 (SITLA surf/Fed Min)

NBU 922-29J4CS [API #4304751222] Spot Monitoring IPC 10-08
NBU 922-29N1BS [API #4304751223] Spot Monitoring IPC 10-08
NBU 922-29O1CS [API #4304751224] Spot Monitoring IPC 10-08

That's quite a list, so I'm attaching a quick-and-dirty spreadsheet of the same data. This may be helpful to some of you.

Thanks.
-Jim

'APIWellNo:43047512730000'

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-25IT 43047512730000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-25IT 4304751273000			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2370	9598		
Previous Shoe Setting Depth (TVD)	40	2370		
Max Mud Weight (ppg)	8.3	11.6		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5663	11.3		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	1027	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	743	NO air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	506	NO OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	514	NO Reasonable depth in area
Required Casing/BOPE Test Pressure=		2370	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	5790	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4638	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3678	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4200	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2370	psi *Assumes 1psi/ft frac gradient

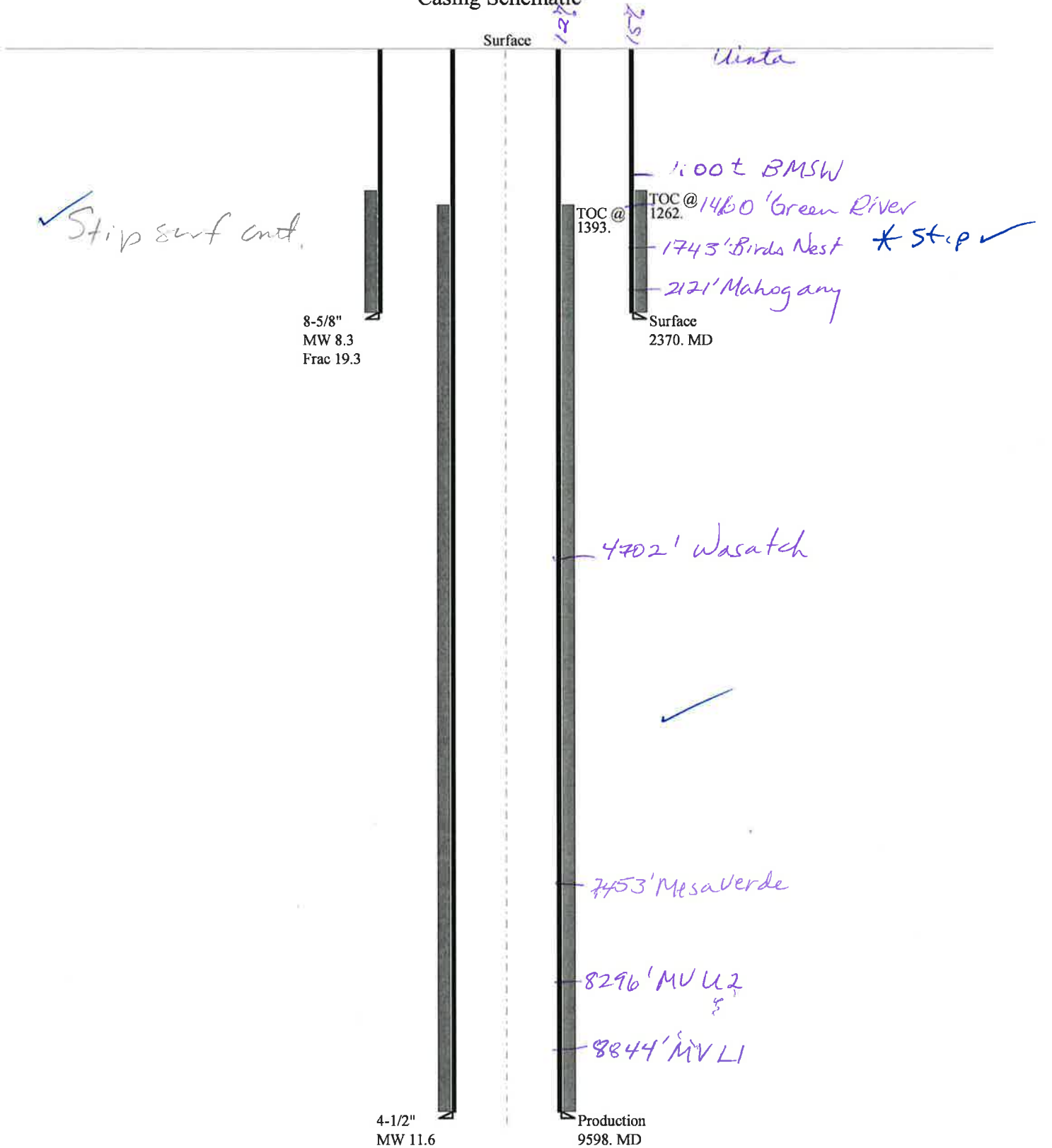
Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

'APIWellNo:43047512730000'

43047512730000 NBU 921-25IT

Casing Schematic



'APIWellNo:43047512730000'

Well name:	**43047512730000 NBU 921-25IT**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Surface
Project ID:	43-047-51273
Location:	UINTAH COUNTY

Design parameters:

Collapse
Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,086 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,370 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 2,079 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 107 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,262 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 9,598 ft
Next mud weight: 11.600 ppg
Next setting BHP: 5,784 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,370 ft
Injection pressure: 2,370 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2370	8.625	28.00	I-55	LT&C	2370	2370	7.892	93852

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1026	1880	1.833	2370	3390	1.43	66.4	348	5.24 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: September 29,2010
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2370 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

'APIWellNo:43047512730000'

Well name:	**43047512730000 NBU 921-25IT**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Production
Project ID:	43-047-51273
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight:	11.600 ppg
Internal fluid density:	1.000 ppg

Burst

Max anticipated surface pressure:	3,672 psi
Internal gradient:	0.220 psi/ft
Calculated BHP	5,784 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor	1.125

Burst:

Design factor	1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.60 (B)

Tension is based on air weight.
Neutral point: 7,934 ft

Environment:

H2S considered?	No
Surface temperature:	74 °F
Bottom hole temperature:	208 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	100 ft
Cement top:	1,393 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	9598	4.5	11.60	I-80	LT&C	9598	9598	3.875	126692

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5285	6360	1.203	5784	7780	1.35	111.3	212	1.90 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: September 29,2010
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 9598 ft, a mud weight of 11.6 ppg An internal gradient of .052 psi/ft was used for collapse from TD
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 921-25IT				
API Number	43047512730000	**APD No**	2959	**Field/Unit**	NATURAL BUTTES
Location: 1/4,1/4	NESE **Sec** 25 **Tw** 9.0S **Rng** 21.0E 2064 FSL 689 FEL				
GPS Coord (UTM)	628684 4429240	**Surface Owner**			

Participants

Floyd Bartlett (DOGM), Sheila Wopsock, Clay Einerson, Roger Perry, Laura Gianokas, Lovel Young, Grizz Oleen, (Kerr McGee), Mitch.Batty, John Slaugh, (Timberline Engineering and Land Surveying), Ed Bonner (SITLA), Ben Williams (UDWR).

Regional/Local Setting & Topography

The general area is the Natural Buttes Unit in a major un-named drainage west of the lower portion of the Sand Wash drainage of Uintah, County, approximately 34 air miles and 42.9 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the area is characterized by open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

The NBU 921-25I pad will be created by enlarging the existing pad of the CIGE 98D gas well. Five gas wells, to be directionally drilled, will be added. They are the NBU 921-25H3DS, 921-25IT, 921-25I2AS, 921-25I4AS and 921-25I4DS. The existing pad will be extended in all directions except to the south. The site is on the west slope of a ridge which continues beyond the location into broken terrain. Small drainages near Corner 11 and within the pad area north of the old pad will be filled. A drainage immediately south of the location will be avoided. No diversions are needed. The White River is approximately 3 1/2 miles down drainage. . The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the best site in the immediate area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat
Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	**Width** 352 **Length** 415	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation is a poor desert shrub type, which includes shadscale, Russian thistle, Indian ricegrass, curly mesquite, broom snakeweed and halogeton..

Antelope, sheep during the winter, rabbits, coyotes, and small mammals, birds and raptors.
.

Soil Type and Characteristics

Surface soils are shallow sandy loam

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potental Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The proposed reserve pit is 104’ x 260’ x 12’ deep located in a cut on the northeast side of the location. Kerr McGee plans a 30-mil liner with a double felt sub-liner.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

Floyd Bartlett	8/25/2010
Evaluator	**Date / Time**

Application for Permit to Drill
Statement of Basis

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
2959	43047512730000	SITLA	NA	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		**Surface Owner-APD**		
Well Name	NBU 921-25IT		**Unit**	NATURAL BUTTES	
Field	NATURAL BUTTES		**Type of Work**	DRILL	
Location	NESE 25 9S 21E S 2064 FSL 689 FEL		GPS Coord (UTM)	628687E 4429248N	

Geologic Statement of Basis

Kerr McGee proposes to set 2,370’ of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 1,100'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 25. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect any usable ground water.

Brad Hill	9/28/2010
APD Evaluator	**Date / Time**

Surface Statement of Basis

The general area is the Natural Buttes Unit in a major un-named drainage west of the lower portion of the Sand Wash drainage of Uintah, County, approximately 34 air miles and 42.9 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the area is characterized by open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

The NBU 921-25I pad will be created by enlarging the existing pad of the CIGE 98D gas well. Five gas wells, to be directionally drilled, will be added. They are the NBU 921-25H3DS, 921-25IT, 921-25I2AS, 921-25I4AS and 921-25I4DS. The existing pad will be extended in all directions except to the south. The site is on the west slope of a ridge which continues beyond the location into broken terrain. Small drainages near Corner 11 and within the pad area north of the old pad will be filled. A drainage immediately south of the location will be avoided. No diversions are needed. The White River is approximately 3 1/2 miles down drainage. . The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the best site in the immediate area.

Both the surface and minerals are owned by SITLA. Ed Bonner represented SITLA at the pre-site investigation. Mr. Bonner had no concerns pertaining to this location. SITLA will provide site reclamation standards and a seed mix.

Ben Williams represented the Utah Division of Wildlife Resources. Mr. Williams stated the area is classified as crucial yearlong antelope habitat but recommended no restrictions for this species. No other wildlife will be significantly affected.

Floyd Bartlett	8/25/2010
Onsite Evaluator	**Date / Time**

'APIWellNo:43047512730000'

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/17/2010 **API NO. ASSIGNED:** 43047512730000

WELL NAME: NBU 921-25IT

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NESE 25 090S 210E **Permit Tech Review:** ☑

SURFACE: 2064 FSL 0689 FEL **Engineering Review:** ☑

BOTTOM: 2064 FSL 0689 FEL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 40.00552 **LONGITUDE:** -109.49236

UTM SURF EASTINGS: 628687.00 **NORTHINGS:** 4429248.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UO 0868 ST **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 3 - State **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** STATE/FEE - 22013542
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: Suspends General Siting

- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
5 - Statement of Basis - bhill
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 921-25IT
API Well Number: 43047512730000
Lease Number: UO 0868 ST
Surface Owner: STATE
Approval Date: 10/5/2010

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before

performing any of the following actions during the drilling of this well:
- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:
- Within 24 hours following the spudding of the well – contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):
- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:
- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

API Well No: 43047512730000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 0868 ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Not Available

8. WELL NAME and NUMBER: NBU 921-25IT

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047512730000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2064 FSL 0689 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 25 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 10/14/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	✓ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	✓ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: BHL Change

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests to change the total depth (TD) to include the Blackhawk formation, which is in the Mesaverde group for this well. In addition, Kerr-McGee requests to change this location from a vertical well to a directional well. The new bottom hole location will be 1,823' FSL, 709' FEL. The surface location is remaining the same. The well name will also change FROM: NBU 921-25IT TO: NBU 921-25I3AS. Please see the attached for additional details. Please contact the undersigned with any questions and/or comments. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 10/7/2010

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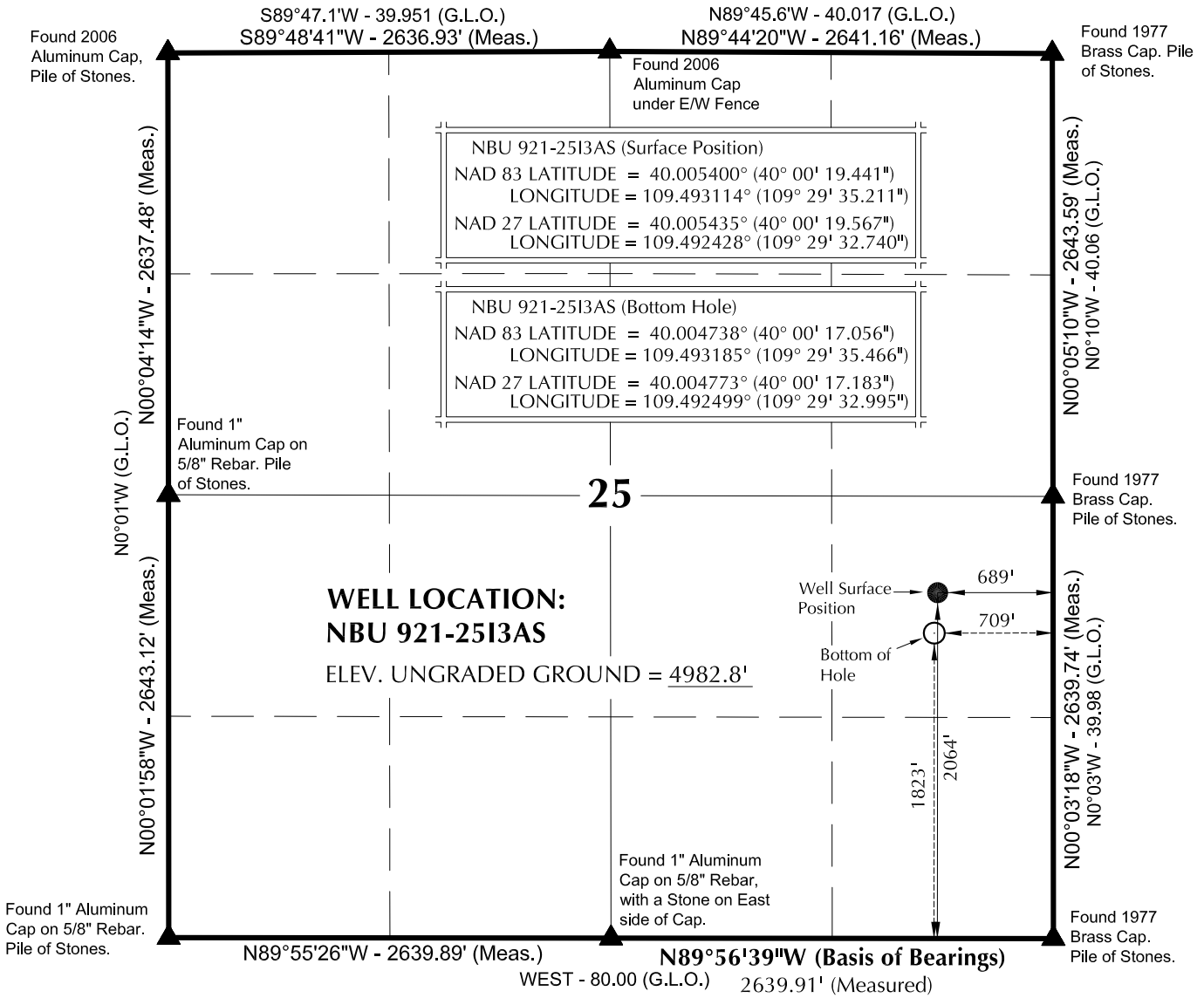
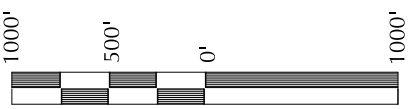
T9S, R21E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

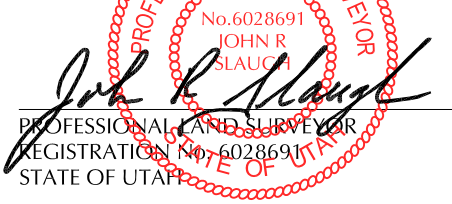
1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S04°43'30"W 242.13' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD: NBU 921-25I

NBU 921-25I3AS
WELL PLAT
1823' FSL, 709' FEL (Bottom Hole)
NE ¼ SE ¼ OF SECTION 25, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 04-01-10	SURVEYED BY: D.J.S.	SHEET NO: 4
DATE DRAWN: 09-13-10	DRAWN BY: M.W.W.	4 OF 17
SCALE: 1" = 1000'	Date Last Revised: 09-24-10 M.W.W.	

NBU 921-25I3AS
Monitor Well
Pad: NBU 921-25I
Surface: 2,064' FSL 689' FEL (NE/4SE/4)
BHL: 1,823' FSL 709' FEL (NE/4SE/4)
Section 25 T9S R21E

Uintah County, Utah
Mineral Lease: UO 0868 ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,457'	
Birds Nest	1,739'	Water
Mahogany	2,117'	Water
Wasatch	4,695'	Gas
Mesaverde	7,347'	Gas
MVU2	8,290'	Gas
MVL1	8,838'	Gas
Sego*	9,591'	
Castlegate*	9,606'	
MN5*	10,053'	
TVD	10,643'	
TD	10,650'	

* The Blackhawk formation is in the Mesaverde group

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

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Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,643' TVD, approximately equals 7,073 psi (calculated at 0.66 psi/foot).

Maximum anticipated surface pressure equals approximately 4,731psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

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Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	October 7, 2010	
WELL NAME	**NBU 921-25I3AS**		TD	10,643' TVD	10,650' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	4,980'

SURFACE LOCATION	NE/4 SE/4	2,064' FSL	689' FEL	Sec 25	T 9S	R 21E
	Latitude:	40.005435	Longitude:	-109.492428		NAD 27
BTM HOLE LOCATION	NE/4 SE/4	1,823' FSL	709' FEL	Sec 25	T 9S	R 21E
	Latitude:	40.004773	Longitude:	-109.492499		NAD 27

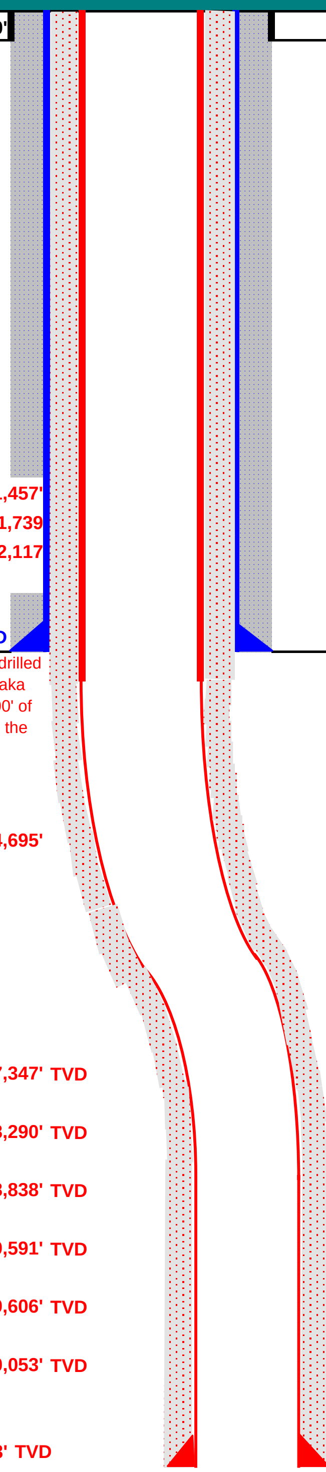
OBJECTIVE ZONE(S): Wasatch/Mesaverde

ADDITIONAL INFO: Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			11"	8-5/8", 28#, IJ-55, LTC	Air mist
	Green River @	1,457'			
	Top of Birds Nest @	1,739'			
	Mahogany @	2,117'			
	Preset f/ GL @	2,570' MD			
	Wasatch @	4,695'			
Mud logging program TBD Cased hole logging program from TD - surf csg			7-7/8"	4-1/2" 11.6# HCP-110 or equivalent BTC/LTC csg	Water / Fresh Water Mud 8.3-13.0 ppg
	Mverde @	7,347' TVD			
	MVU2 @	8,290' TVD			
	MVU1 @	8,838' TVD			
	Sego @	9,591' TVD			
	Castlegate @	9,606' TVD			
	MN5 @	10,053' TVD			
Max anticipated Mud required 13.0 ppg	TD @	10,643' TVD 10,650' MD			

All water flows encountered while drilling will be reported to the appropriate agencies.

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.



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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	DESIGN FACTORS COLLAPSE	DESIGN FACTORS TENSION
CONDUCTOR	14"	0-40'								
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,570'	28.00	IJ-55	LTC	0.70	1.56	4.79
								10,690	8,650	367,000
PRODUCTION	4-1/2"	0	to	10,650'	11.60	HCP-110	BTC	4.56	1.20	3.71

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.09

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 13.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 4,731 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 13.0 ppg) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 7,073 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
SURFACE		**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	2,070'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,190'	Premium Lite II + 3% KCl + 0.25 pps	310	20%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	6,460'	50/50 Poz/G + 10% salt + 2% gel	1,360	20%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: John Merkel / Lovel Young

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Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 921-25I Pad
Well: NBU 921-25I3AS
Wellbore: OH
Design: PLAN #3

Anadarko Petroleum Corporation

WELL DETAILS: NBU 921-25I3AS

GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14531594.51	2062599.81	40° 0' 19.566 N	109° 29' 32.741 W

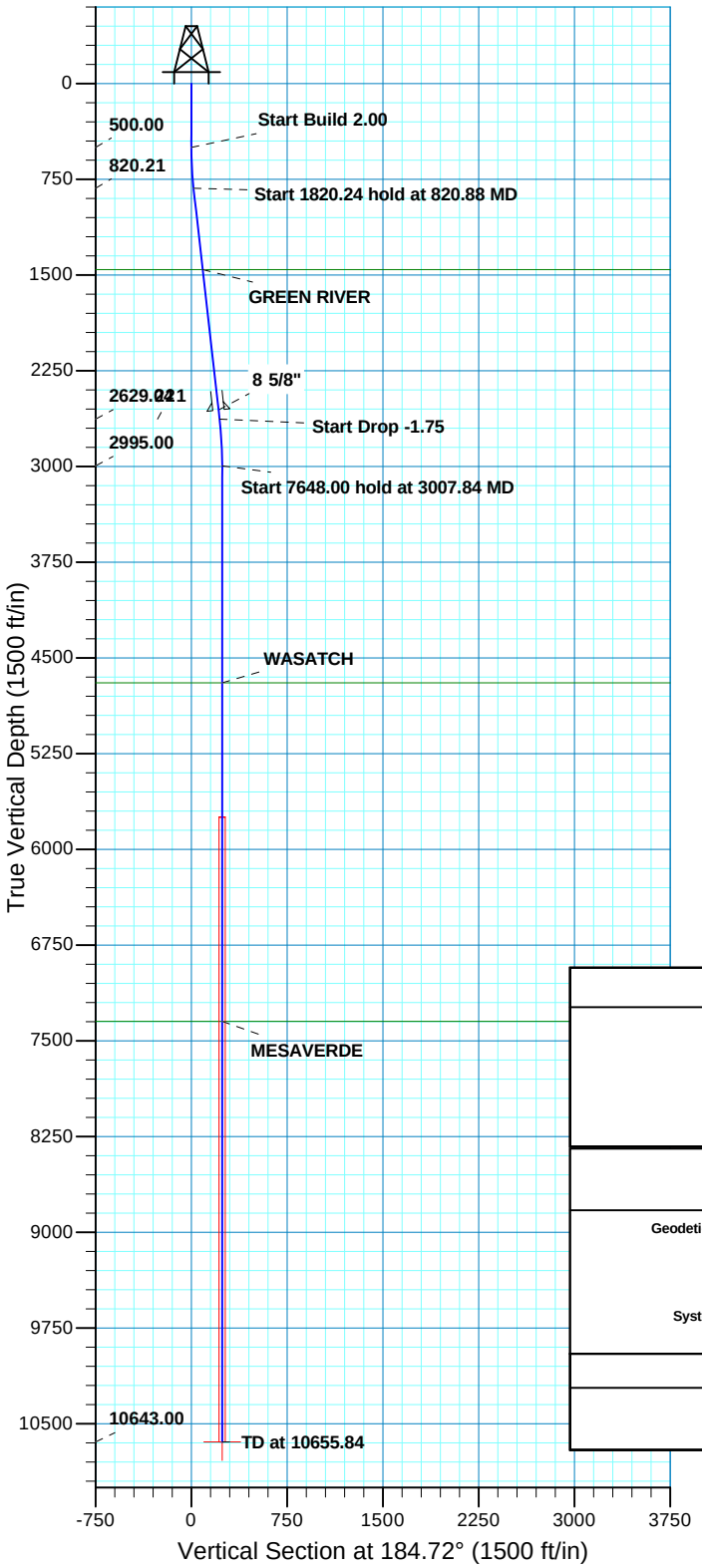
DESIGN TARGET DETAILS

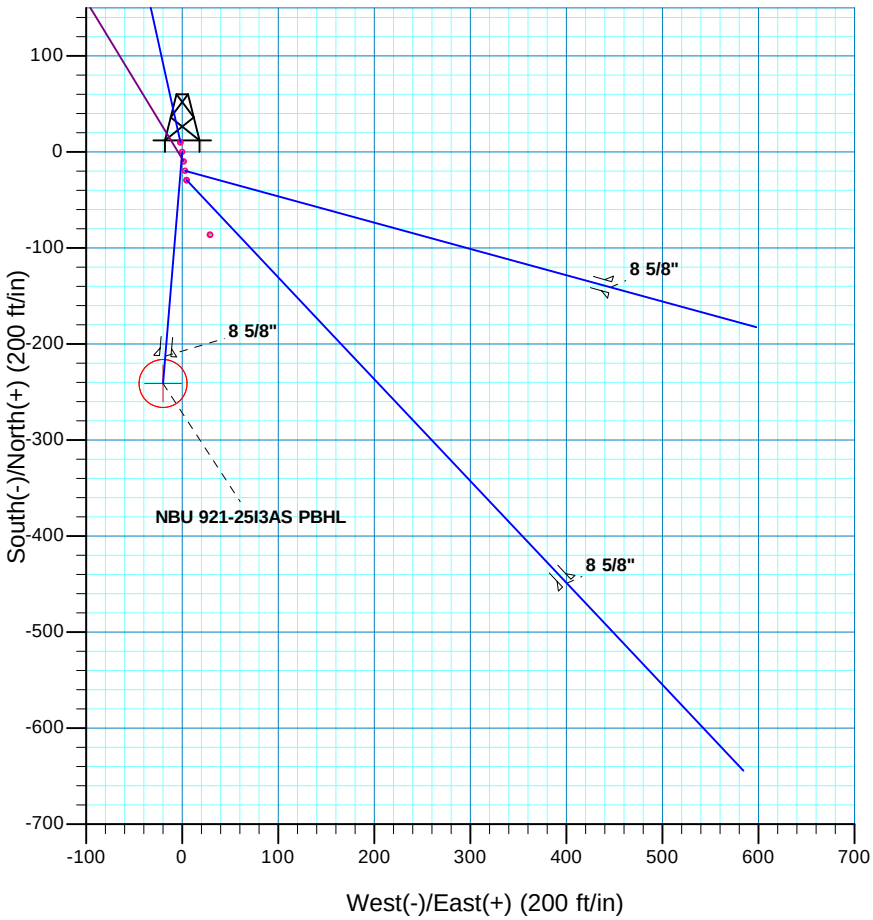
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	10643.00	-241.11	-19.89	14531353.10	2062584.00	40° 0' 17.183 N	109° 29' 32.996 W	Circle (Radius: 25.00)
	- plan hits target center							

T M

Azimuths to True North
Magnetic North: 11.18°

Magnetic Field
Strength: 52416.7snT
Dip Angle: 65.90°
Date: 08/12/2010
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
820.88	6.42	184.72	820.21	-17.89	-1.48	2.00	184.72	17.95	
2641.12	6.42	184.72	2629.04	-220.66	-18.20	0.00	0.00	221.41	
3007.84	0.00	0.00	2995.00	-241.11	-19.89	1.75	180.00	241.93	
10655.84	0.00	0.00	10643.00	-241.11	-19.89	0.00	0.00	241.93	NBU 921-25I3AS PBHL

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 - Western US
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SEC 25 T9S R21E
System Datum:	Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1457.00	1461.69	GREEN RIVER
4695.00	4707.84	WASATCH
7347.00	7359.84	MESAVERDE

CASING DETAILS

TVD	MD	Name	Size
2558.37	2570.00	8 5/8"	8.625

Plan: PLAN #3 (NBU 921-25I3AS/OH)
Created By: RobertScott Date: 10:17, October 07 2010

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 921-25I Pad
NBU 921-25I3AS

OH

Plan: PLAN #3

Standard Planning Report

07 October, 2010

Anadarko
Petroleum Corporation

RECEIVED October 07, 2010

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site:	NBU 921-25I Pad	**North Reference:**	True
Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

Project Uintah County, UT UTM12

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 921-25I Pad, SEC 25 T9S R21E

Site Position:		**Northing:**	14,531,604.32 usft	**Latitude:**	40° 0' 19.663 N
From:	Lat/Long	**Easting:**	2,062,597.96 usft	**Longitude:**	109° 29' 32.762 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.97 °

Well NBU 921-25I3AS, 2045' FSL 686' FEL

Well Position	**+N/-S**	-9.83 ft	**Northing:**	14,531,594.51 usft	**Latitude:**	40° 0' 19.566 N
	+E/-W	1.68 ft	**Easting:**	2,062,599.81 usft	**Longitude:**	109° 29' 32.741 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	4,980.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/12/2010	11.18	65.90	52,417

Design PLAN #3

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	184.72

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
820.88	6.42	184.72	820.21	-17.89	-1.48	2.00	2.00	0.00	184.72	
2,641.12	6.42	184.72	2,629.04	-220.66	-18.20	0.00	0.00	0.00	0.00	
3,007.84	0.00	0.00	2,995.00	-241.11	-19.89	1.75	-1.75	0.00	180.00	
10,655.84	0.00	0.00	10,643.00	-241.11	-19.89	0.00	0.00	0.00	0.00	NBU 921-25I3AS PBH

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site:	NBU 921-25I Pad	**North Reference:**	True
Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
600.00	2.00	184.72	599.98	-1.74	-0.14	1.75	2.00	2.00	0.00
700.00	4.00	184.72	699.84	-6.95	-0.57	6.98	2.00	2.00	0.00
800.00	6.00	184.72	799.45	-15.64	-1.29	15.69	2.00	2.00	0.00
820.88	6.42	184.72	820.21	-17.89	-1.48	17.95	2.00	2.00	0.00
Start 1820.24 hold at 820.88 MD									
900.00	6.42	184.72	898.83	-26.70	-2.20	26.80	0.00	0.00	0.00
1,000.00	6.42	184.72	998.21	-37.84	-3.12	37.97	0.00	0.00	0.00
1,100.00	6.42	184.72	1,097.58	-48.98	-4.04	49.15	0.00	0.00	0.00
1,200.00	6.42	184.72	1,196.95	-60.12	-4.96	60.33	0.00	0.00	0.00
1,300.00	6.42	184.72	1,296.33	-71.26	-5.88	71.51	0.00	0.00	0.00
1,400.00	6.42	184.72	1,395.70	-82.40	-6.80	82.68	0.00	0.00	0.00
1,461.69	6.42	184.72	1,457.00	-89.27	-7.36	89.58	0.00	0.00	0.00
GREEN RIVER									
1,500.00	6.42	184.72	1,495.07	-93.54	-7.72	93.86	0.00	0.00	0.00
1,600.00	6.42	184.72	1,594.45	-104.68	-8.63	105.04	0.00	0.00	0.00
1,700.00	6.42	184.72	1,693.82	-115.82	-9.55	116.22	0.00	0.00	0.00
1,800.00	6.42	184.72	1,793.19	-126.96	-10.47	127.39	0.00	0.00	0.00
1,900.00	6.42	184.72	1,892.57	-138.10	-11.39	138.57	0.00	0.00	0.00
2,000.00	6.42	184.72	1,991.94	-149.24	-12.31	149.75	0.00	0.00	0.00
2,100.00	6.42	184.72	2,091.31	-160.38	-13.23	160.93	0.00	0.00	0.00
2,200.00	6.42	184.72	2,190.69	-171.52	-14.15	172.10	0.00	0.00	0.00
2,300.00	6.42	184.72	2,290.06	-182.66	-15.07	183.28	0.00	0.00	0.00
2,400.00	6.42	184.72	2,389.43	-193.80	-15.99	194.46	0.00	0.00	0.00
2,500.00	6.42	184.72	2,488.81	-204.94	-16.90	205.63	0.00	0.00	0.00
2,570.00	6.42	184.72	2,558.37	-212.74	-17.55	213.46	0.00	0.00	0.00
8 5/8"									
2,600.00	6.42	184.72	2,588.18	-216.08	-17.82	216.81	0.00	0.00	0.00
2,641.12	6.42	184.72	2,629.04	-220.66	-18.20	221.41	0.00	0.00	0.00
Start Drop -1.75									
2,700.00	5.39	184.72	2,687.61	-226.69	-18.70	227.46	1.75	-1.75	0.00
2,800.00	3.64	184.72	2,787.30	-234.53	-19.34	235.33	1.75	-1.75	0.00
2,900.00	1.89	184.72	2,887.18	-239.34	-19.74	240.15	1.75	-1.75	0.00
3,000.00	0.14	184.72	2,987.16	-241.10	-19.89	241.92	1.75	-1.75	0.00
3,007.84	0.00	0.00	2,995.00	-241.11	-19.89	241.93	1.75	-1.75	0.00
Start 7648.00 hold at 3007.84 MD									
3,100.00	0.00	0.00	3,087.16	-241.11	-19.89	241.93	0.00	0.00	0.00
3,200.00	0.00	0.00	3,187.16	-241.11	-19.89	241.93	0.00	0.00	0.00
3,300.00	0.00	0.00	3,287.16	-241.11	-19.89	241.93	0.00	0.00	0.00
3,400.00	0.00	0.00	3,387.16	-241.11	-19.89	241.93	0.00	0.00	0.00
3,500.00	0.00	0.00	3,487.16	-241.11	-19.89	241.93	0.00	0.00	0.00
3,600.00	0.00	0.00	3,587.16	-241.11	-19.89	241.93	0.00	0.00	0.00
3,700.00	0.00	0.00	3,687.16	-241.11	-19.89	241.93	0.00	0.00	0.00
3,800.00	0.00	0.00	3,787.16	-241.11	-19.89	241.93	0.00	0.00	0.00
3,900.00	0.00	0.00	3,887.16	-241.11	-19.89	241.93	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site:	NBU 921-25I Pad	**North Reference:**	True
Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,000.00	0.00	0.00	3,987.16	-241.11	-19.89	241.93	0.00	0.00	0.00
4,100.00	0.00	0.00	4,087.16	-241.11	-19.89	241.93	0.00	0.00	0.00
4,200.00	0.00	0.00	4,187.16	-241.11	-19.89	241.93	0.00	0.00	0.00
4,300.00	0.00	0.00	4,287.16	-241.11	-19.89	241.93	0.00	0.00	0.00
4,400.00	0.00	0.00	4,387.16	-241.11	-19.89	241.93	0.00	0.00	0.00
4,500.00	0.00	0.00	4,487.16	-241.11	-19.89	241.93	0.00	0.00	0.00
4,600.00	0.00	0.00	4,587.16	-241.11	-19.89	241.93	0.00	0.00	0.00
4,700.00	0.00	0.00	4,687.16	-241.11	-19.89	241.93	0.00	0.00	0.00
4,707.84	0.00	0.00	4,695.00	-241.11	-19.89	241.93	0.00	0.00	0.00
WASATCH									
4,800.00	0.00	0.00	4,787.16	-241.11	-19.89	241.93	0.00	0.00	0.00
4,900.00	0.00	0.00	4,887.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,000.00	0.00	0.00	4,987.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,100.00	0.00	0.00	5,087.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,200.00	0.00	0.00	5,187.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,300.00	0.00	0.00	5,287.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,400.00	0.00	0.00	5,387.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,500.00	0.00	0.00	5,487.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,600.00	0.00	0.00	5,587.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,700.00	0.00	0.00	5,687.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,800.00	0.00	0.00	5,787.16	-241.11	-19.89	241.93	0.00	0.00	0.00
5,900.00	0.00	0.00	5,887.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,000.00	0.00	0.00	5,987.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,100.00	0.00	0.00	6,087.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,200.00	0.00	0.00	6,187.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,300.00	0.00	0.00	6,287.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,400.00	0.00	0.00	6,387.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,500.00	0.00	0.00	6,487.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,600.00	0.00	0.00	6,587.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,700.00	0.00	0.00	6,687.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,800.00	0.00	0.00	6,787.16	-241.11	-19.89	241.93	0.00	0.00	0.00
6,900.00	0.00	0.00	6,887.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,000.00	0.00	0.00	6,987.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,100.00	0.00	0.00	7,087.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,200.00	0.00	0.00	7,187.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,300.00	0.00	0.00	7,287.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,359.84	0.00	0.00	7,347.00	-241.11	-19.89	241.93	0.00	0.00	0.00
MESAVERDE									
7,400.00	0.00	0.00	7,387.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,500.00	0.00	0.00	7,487.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,600.00	0.00	0.00	7,587.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,700.00	0.00	0.00	7,687.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,800.00	0.00	0.00	7,787.16	-241.11	-19.89	241.93	0.00	0.00	0.00
7,900.00	0.00	0.00	7,887.16	-241.11	-19.89	241.93	0.00	0.00	0.00
8,000.00	0.00	0.00	7,987.16	-241.11	-19.89	241.93	0.00	0.00	0.00
8,100.00	0.00	0.00	8,087.16	-241.11	-19.89	241.93	0.00	0.00	0.00
8,200.00	0.00	0.00	8,187.16	-241.11	-19.89	241.93	0.00	0.00	0.00
8,300.00	0.00	0.00	8,287.16	-241.11	-19.89	241.93	0.00	0.00	0.00
8,400.00	0.00	0.00	8,387.16	-241.11	-19.89	241.93	0.00	0.00	0.00
8,500.00	0.00	0.00	8,487.16	-241.11	-19.89	241.93	0.00	0.00	0.00
8,600.00	0.00	0.00	8,587.16	-241.11	-19.89	241.93	0.00	0.00	0.00
8,700.00	0.00	0.00	8,687.16	-241.11	-19.89	241.93	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site:	NBU 921-25I Pad	**North Reference:**	True
Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00	0.00	0.00	8,787.16	-241.11	-19.89	241.93	0.00	0.00	0.00
8,900.00	0.00	0.00	8,887.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,000.00	0.00	0.00	8,987.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,100.00	0.00	0.00	9,087.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,200.00	0.00	0.00	9,187.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,300.00	0.00	0.00	9,287.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,400.00	0.00	0.00	9,387.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,500.00	0.00	0.00	9,487.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,600.00	0.00	0.00	9,587.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,700.00	0.00	0.00	9,687.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,800.00	0.00	0.00	9,787.16	-241.11	-19.89	241.93	0.00	0.00	0.00
9,900.00	0.00	0.00	9,887.16	-241.11	-19.89	241.93	0.00	0.00	0.00
10,000.00	0.00	0.00	9,987.16	-241.11	-19.89	241.93	0.00	0.00	0.00
10,100.00	0.00	0.00	10,087.16	-241.11	-19.89	241.93	0.00	0.00	0.00
10,200.00	0.00	0.00	10,187.16	-241.11	-19.89	241.93	0.00	0.00	0.00
10,300.00	0.00	0.00	10,287.16	-241.11	-19.89	241.93	0.00	0.00	0.00
10,400.00	0.00	0.00	10,387.16	-241.11	-19.89	241.93	0.00	0.00	0.00
10,500.00	0.00	0.00	10,487.16	-241.11	-19.89	241.93	0.00	0.00	0.00
10,600.00	0.00	0.00	10,587.16	-241.11	-19.89	241.93	0.00	0.00	0.00
10,655.84	0.00	0.00	10,643.00	-241.11	-19.89	241.93	0.00	0.00	0.00
NBU 921-25I3AS PBHL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NBU 921-25I3AS PBHL - plan hits target center - Circle (radius 25.00)	0.00	0.00	10,643.00	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,570.00	2,558.37	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,461.69	1,457.00	GREEN RIVER		0.00	
4,707.84	4,695.00	WASATCH		0.00	
7,359.84	7,347.00	MESAVERDE		0.00	

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site:	NBU 921-25I Pad	**North Reference:**	True
Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
500.00	500.00	0.00	0.00	Start Build 2.00
820.88	820.21	-17.89	-1.48	Start 1820.24 hold at 820.88 MD
2,641.12	2,629.04	-220.66	-18.20	Start Drop -1.75
3,007.84	2,995.00	-241.11	-19.89	Start 7648.00 hold at 3007.84 MD
10,655.84	10,643.00	-241.11	-19.89	TD at 10655.84

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 921-25I Pad
NBU 921-25I3AS

OH

Plan: PLAN #3

Survey Report - Geographic

07 October, 2010

Anadarko
Petroleum Corporation

RECEIVED October 07, 2010

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	PLAN #3	**Database:**	EDM5000-RobertS-Local

Project Uintah County, UT UTM12

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 921-25I Pad, SEC 25 T9S R21E

Site Position:		**Northing:**	14,531,604.32 usft	**Latitude:**	40° 0' 19.663 N
From:	Lat/Long	**Easting:**	2,062,597.96 usft	**Longitude:**	109° 29' 32.762 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.97 °

Well NBU 921-25I3AS, 2045' FSL 686' FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,531,594.51 usft	**Latitude:**	40° 0' 19.566 N
	+E/-W	0.00 ft	**Easting:**	2,062,599.81 usft	**Longitude:**	109° 29' 32.741 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,980.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/12/2010	11.18	65.90	52,417

Design PLAN #3

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	184.72

Survey Tool Program **Date** 10/07/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	10,655.84	PLAN #3 (OH)	MWD SDI	MWD - Standard ver 1.0.1

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,531,594.51	2,062,599.81	40° 0' 19.566 N	109° 29' 32.741 W
100.00	0.00	0.00	100.00	0.00	0.00	14,531,594.51	2,062,599.81	40° 0' 19.566 N	109° 29' 32.741 W
200.00	0.00	0.00	200.00	0.00	0.00	14,531,594.51	2,062,599.81	40° 0' 19.566 N	109° 29' 32.741 W
300.00	0.00	0.00	300.00	0.00	0.00	14,531,594.51	2,062,599.81	40° 0' 19.566 N	109° 29' 32.741 W
400.00	0.00	0.00	400.00	0.00	0.00	14,531,594.51	2,062,599.81	40° 0' 19.566 N	109° 29' 32.741 W
500.00	0.00	0.00	500.00	0.00	0.00	14,531,594.51	2,062,599.81	40° 0' 19.566 N	109° 29' 32.741 W
Start Build 2.00									
600.00	2.00	184.72	599.98	-1.74	-0.14	14,531,592.77	2,062,599.69	40° 0' 19.549 N	109° 29' 32.743 W
700.00	4.00	184.72	699.84	-6.95	-0.57	14,531,587.55	2,062,599.35	40° 0' 19.497 N	109° 29' 32.748 W
800.00	6.00	184.72	799.45	-15.64	-1.29	14,531,578.85	2,062,598.78	40° 0' 19.411 N	109° 29' 32.757 W
820.88	6.42	184.72	820.21	-17.89	-1.48	14,531,576.60	2,062,598.63	40° 0' 19.389 N	109° 29' 32.760 W
Start 1820.24 hold at 820.88 MD									

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	PLAN #3	**Database:**	EDM5000-RobertS-Local

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
900.00	6.42	184.72	898.83	-26.70	-2.20	14,531,567.78	2,062,598.06	40° 0' 19.302 N	109° 29' 32.769 W
1,000.00	6.42	184.72	998.21	-37.84	-3.12	14,531,556.62	2,062,597.33	40° 0' 19.192 N	109° 29' 32.781 W
1,100.00	6.42	184.72	1,097.58	-48.98	-4.04	14,531,545.47	2,062,596.59	40° 0' 19.082 N	109° 29' 32.793 W
1,200.00	6.42	184.72	1,196.95	-60.12	-4.96	14,531,534.31	2,062,595.86	40° 0' 18.972 N	109° 29' 32.805 W
1,300.00	6.42	184.72	1,296.33	-71.26	-5.88	14,531,523.16	2,062,595.13	40° 0' 18.862 N	109° 29' 32.816 W
1,400.00	6.42	184.72	1,395.70	-82.40	-6.80	14,531,512.01	2,062,594.40	40° 0' 18.751 N	109° 29' 32.828 W
1,461.69	6.42	184.72	1,457.00	-89.27	-7.36	14,531,505.13	2,062,593.95	40° 0' 18.684 N	109° 29' 32.835 W
GREEN RIVER									
1,500.00	6.42	184.72	1,495.07	-93.54	-7.72	14,531,500.85	2,062,593.67	40° 0' 18.641 N	109° 29' 32.840 W
1,600.00	6.42	184.72	1,594.45	-104.68	-8.63	14,531,489.70	2,062,592.94	40° 0' 18.531 N	109° 29' 32.852 W
1,700.00	6.42	184.72	1,693.82	-115.82	-9.55	14,531,478.55	2,062,592.21	40° 0' 18.421 N	109° 29' 32.864 W
1,800.00	6.42	184.72	1,793.19	-126.96	-10.47	14,531,467.39	2,062,591.48	40° 0' 18.311 N	109° 29' 32.875 W
1,900.00	6.42	184.72	1,892.57	-138.10	-11.39	14,531,456.24	2,062,590.75	40° 0' 18.201 N	109° 29' 32.887 W
2,000.00	6.42	184.72	1,991.94	-149.24	-12.31	14,531,445.09	2,062,590.02	40° 0' 18.091 N	109° 29' 32.899 W
2,100.00	6.42	184.72	2,091.31	-160.38	-13.23	14,531,433.93	2,062,589.29	40° 0' 17.981 N	109° 29' 32.911 W
2,200.00	6.42	184.72	2,190.69	-171.52	-14.15	14,531,422.78	2,062,588.56	40° 0' 17.871 N	109° 29' 32.923 W
2,300.00	6.42	184.72	2,290.06	-182.66	-15.07	14,531,411.63	2,062,587.83	40° 0' 17.761 N	109° 29' 32.934 W
2,400.00	6.42	184.72	2,389.43	-193.80	-15.99	14,531,400.47	2,062,587.10	40° 0' 17.650 N	109° 29' 32.946 W
2,500.00	6.42	184.72	2,488.81	-204.94	-16.90	14,531,389.32	2,062,586.37	40° 0' 17.540 N	109° 29' 32.958 W
2,570.00	6.42	184.72	2,558.37	-212.74	-17.55	14,531,381.51	2,062,585.86	40° 0' 17.463 N	109° 29' 32.966 W
8 5/8"									
2,600.00	6.42	184.72	2,588.18	-216.08	-17.82	14,531,378.16	2,062,585.64	40° 0' 17.430 N	109° 29' 32.970 W
2,641.12	6.42	184.72	2,629.04	-220.66	-18.20	14,531,373.58	2,062,585.34	40° 0' 17.385 N	109° 29' 32.975 W
Start Drop -1.75									
2,700.00	5.39	184.72	2,687.61	-226.69	-18.70	14,531,367.54	2,062,584.95	40° 0' 17.325 N	109° 29' 32.981 W
2,800.00	3.64	184.72	2,787.30	-234.53	-19.34	14,531,359.69	2,062,584.43	40° 0' 17.248 N	109° 29' 32.989 W
2,900.00	1.89	184.72	2,887.18	-239.34	-19.74	14,531,354.88	2,062,584.12	40° 0' 17.200 N	109° 29' 32.995 W
3,000.00	0.14	184.72	2,987.16	-241.10	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
3,007.84	0.00	0.00	2,995.00	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
Start 7648.00 hold at 3007.84 MD									
3,100.00	0.00	0.00	3,087.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
3,200.00	0.00	0.00	3,187.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
3,300.00	0.00	0.00	3,287.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
3,400.00	0.00	0.00	3,387.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
3,500.00	0.00	0.00	3,487.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
3,600.00	0.00	0.00	3,587.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
3,700.00	0.00	0.00	3,687.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
3,800.00	0.00	0.00	3,787.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
3,900.00	0.00	0.00	3,887.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,000.00	0.00	0.00	3,987.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,100.00	0.00	0.00	4,087.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,200.00	0.00	0.00	4,187.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,300.00	0.00	0.00	4,287.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,400.00	0.00	0.00	4,387.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,500.00	0.00	0.00	4,487.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,600.00	0.00	0.00	4,587.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,700.00	0.00	0.00	4,687.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,707.84	0.00	0.00	4,695.00	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
WASATCH									
4,800.00	0.00	0.00	4,787.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
4,900.00	0.00	0.00	4,887.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
5,000.00	0.00	0.00	4,987.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
5,100.00	0.00	0.00	5,087.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
5,200.00	0.00	0.00	5,187.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	PLAN #3	**Database:**	EDM5000-RobertS-Local

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,300.00	0.00	0.00	5,287.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
5,400.00	0.00	0.00	5,387.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
5,500.00	0.00	0.00	5,487.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
5,600.00	0.00	0.00	5,587.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
5,700.00	0.00	0.00	5,687.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
5,800.00	0.00	0.00	5,787.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
5,900.00	0.00	0.00	5,887.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,000.00	0.00	0.00	5,987.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,100.00	0.00	0.00	6,087.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,200.00	0.00	0.00	6,187.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,300.00	0.00	0.00	6,287.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,400.00	0.00	0.00	6,387.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,500.00	0.00	0.00	6,487.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,600.00	0.00	0.00	6,587.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,700.00	0.00	0.00	6,687.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,800.00	0.00	0.00	6,787.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
6,900.00	0.00	0.00	6,887.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,000.00	0.00	0.00	6,987.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,100.00	0.00	0.00	7,087.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,200.00	0.00	0.00	7,187.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,300.00	0.00	0.00	7,287.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,359.84	0.00	0.00	7,347.00	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
MESAVERDE									
7,400.00	0.00	0.00	7,387.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,500.00	0.00	0.00	7,487.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,600.00	0.00	0.00	7,587.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,700.00	0.00	0.00	7,687.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,800.00	0.00	0.00	7,787.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
7,900.00	0.00	0.00	7,887.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,000.00	0.00	0.00	7,987.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,100.00	0.00	0.00	8,087.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,200.00	0.00	0.00	8,187.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,300.00	0.00	0.00	8,287.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,400.00	0.00	0.00	8,387.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,500.00	0.00	0.00	8,487.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,600.00	0.00	0.00	8,587.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,700.00	0.00	0.00	8,687.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,800.00	0.00	0.00	8,787.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
8,900.00	0.00	0.00	8,887.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,000.00	0.00	0.00	8,987.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,100.00	0.00	0.00	9,087.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,200.00	0.00	0.00	9,187.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,300.00	0.00	0.00	9,287.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,400.00	0.00	0.00	9,387.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,500.00	0.00	0.00	9,487.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,600.00	0.00	0.00	9,587.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,700.00	0.00	0.00	9,687.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,800.00	0.00	0.00	9,787.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
9,900.00	0.00	0.00	9,887.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
10,000.00	0.00	0.00	9,987.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
10,100.00	0.00	0.00	10,087.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
10,200.00	0.00	0.00	10,187.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
10,300.00	0.00	0.00	10,287.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
10,400.00	0.00	0.00	10,387.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
10,500.00	0.00	0.00	10,487.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	PLAN #3	**Database:**	EDM5000-RobertS-Local

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,600.00	0.00	0.00	10,587.16	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
10,655.84	0.00	0.00	10,643.00	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W
NBU 921-25I3AS PBHL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NBU 921-25I3AS PBHL - plan hits target center - Circle (radius 25.00)	0.00	0.00	10,643.00	-241.11	-19.89	14,531,353.11	2,062,584.00	40° 0' 17.183 N	109° 29' 32.996 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,570.00	2,558.37	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,461.69	1,457.00	GREEN RIVER		0.00	
4,707.84	4,695.00	WASATCH		0.00	
7,359.84	7,347.00	MESAVERDE		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
500	500	0	0	Start Build 2.00
821	820	-18	-1	Start 1820.24 hold at 820.88 MD
2641	2629	-221	-18	Start Drop -1.75
3008	2995	-241	-20	Start 7648.00 hold at 3007.84 MD
10,656	10,643	-241	-20	TD at 10655.84

Checked By: _____ Approved By: _____ Date: _____

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 921-25I Pad
NBU 921-25I3AS

OH
PLAN #3

Anticollision Report

07 October, 2010

Anadarko
Petroleum Corporation

RECEIVED October 07, 2010

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Reference	PLAN #3		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00 ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 10/07/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	10,655.84	PLAN #3 (OH)	MWD SDI	MWD - Standard ver 1.0.1

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
NBU 921-25I Pad						
CIGE 98D - OH - NO SURVEYS	1,408.49	1,390.13	36.13	5.07	1.163	Level 2, CC
CIGE 98D - OH - NO SURVEYS	9,000.00	8,973.16	162.36	-36.24	0.818	Level 1, ES, SF
NBU 921-25H3DS - OH - PLAN #1	300.00	300.00	9.98	8.88	9.133	CC, ES
NBU 921-25H3DS - OH - PLAN #1	400.00	399.61	11.71	10.17	7.601	SF
NBU 921-25I2AS - OH - PLAN #1	529.80	530.04	3.58	1.45	1.684	CC, ES, SF
NBU 921-25I4AS - OH - PLAN #1	300.00	300.00	19.91	18.81	18.224	CC, ES
NBU 921-25I4AS - OH - PLAN #1	500.00	499.11	23.63	21.67	12.052	SF
NBU 921-25I4DS - OH - PLAN #1	300.00	300.00	29.91	28.82	27.379	CC, ES
NBU 921-25I4DS - OH - PLAN #1	9,600.00	9,715.60	726.58	684.32	17.192	SF

Offset Design NBU 921-25I Pad - CIGE 98D - OH - NO SURVEYS

Survey Program: 9000-UNKNOWN

Offset Site Error: 0.00 ft
Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	161.35	-86.32	29.13	92.17				
100.00	100.00	86.00	86.00	0.10	1.72	161.35	-86.32	29.13	91.10	89.28	1.82	50.142	
200.00	200.00	186.00	186.00	0.32	3.72	161.35	-86.32	29.13	91.10	87.06	4.04	22.541	
300.00	300.00	286.00	286.00	0.55	5.72	161.35	-86.32	29.13	91.10	84.83	6.27	14.538	
400.00	400.00	386.00	386.00	0.77	7.72	161.35	-86.32	29.13	91.10	82.61	8.49	10.729	
500.00	500.00	486.00	486.00	1.00	9.72	161.35	-86.32	29.13	91.10	80.38	10.72	8.501	
600.00	599.98	585.98	585.98	1.19	11.72	-23.82	-86.32	29.13	89.50	76.59	12.91	6.934	
700.00	699.84	685.84	685.84	1.38	13.72	-25.29	-86.32	29.13	84.74	69.67	15.06	5.625	
800.00	799.45	785.45	785.45	1.59	15.71	-28.13	-86.32	29.13	76.95	59.73	17.21	4.470	
820.88	820.21	806.21	806.21	1.64	16.12	-28.97	-86.32	29.13	74.96	57.30	17.66	4.244	
900.00	898.83	884.83	884.83	1.83	17.70	-32.60	-86.32	29.13	67.35	47.94	19.41	3.470	
1,000.00	998.21	984.21	984.21	2.10	19.68	-38.53	-86.32	29.13	58.22	36.58	21.64	2.691	
1,100.00	1,097.58	1,083.58	1,083.58	2.37	21.67	-46.52	-86.32	29.13	49.94	26.04	23.90	2.090	
1,200.00	1,196.95	1,182.95	1,182.95	2.65	23.66	-57.34	-86.32	29.13	42.99	16.79	26.20	1.641	
1,300.00	1,296.33	1,282.33	1,282.33	2.94	25.65	-71.55	-86.32	29.13	38.11	9.57	28.54	1.335	Level 3
1,400.00	1,395.70	1,381.70	1,381.70	3.23	27.63	-88.51	-86.32	29.13	36.14	5.28	30.86	1.171	Level 2

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - CIGE 98D - OH - NO SURVEYS — **Offset Site Error:** 0.00 ft

Survey Program: 9000-UNKNOWN — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,408.49	1,404.13	1,390.13	1,390.13	3.26	27.80	-90.00	-86.32	29.13	36.13	5.07	31.06	1.163	Level 2, CC
1,500.00	1,495.07	1,481.07	1,481.07	3.53	29.62	-105.72	-86.32	29.13	37.55	4.44	33.10	1.134	Level 2
1,600.00	1,594.45	1,580.45	1,580.45	3.82	31.61	-120.49	-86.32	29.13	41.99	6.73	35.26	1.191	Level 2
1,700.00	1,693.82	1,679.82	1,679.82	4.12	33.60	-131.87	-86.32	29.13	48.65	11.26	37.39	1.301	Level 3
1,800.00	1,793.19	1,779.19	1,779.19	4.43	35.58	-140.28	-86.32	29.13	56.75	17.23	39.52	1.436	Level 3
1,900.00	1,892.57	1,878.57	1,878.57	4.73	37.57	-146.51	-86.32	29.13	65.75	24.09	41.66	1.578	
2,000.00	1,991.94	1,977.94	1,977.94	5.03	39.56	-151.20	-86.32	29.13	75.34	31.52	43.82	1.719	
2,100.00	2,091.31	2,077.31	2,077.31	5.34	41.55	-154.81	-86.32	29.13	85.32	39.32	46.00	1.855	
2,200.00	2,190.69	2,176.69	2,176.69	5.64	43.53	-157.66	-86.32	29.13	95.56	47.39	48.18	1.984	
2,300.00	2,290.06	2,276.06	2,276.06	5.95	45.52	-159.96	-86.32	29.13	106.00	55.63	50.36	2.105	
2,400.00	2,389.43	2,375.43	2,375.43	6.26	47.51	-161.84	-86.32	29.13	116.57	64.01	52.56	2.218	
2,500.00	2,488.81	2,474.81	2,474.81	6.56	49.50	-163.41	-86.32	29.13	127.24	72.49	54.75	2.324	
2,600.00	2,588.18	2,574.18	2,574.18	6.87	51.48	-164.73	-86.32	29.13	137.99	81.04	56.95	2.423	
2,641.12	2,629.04	2,615.04	2,615.04	7.00	52.30	-165.22	-86.32	29.13	142.44	84.58	57.85	2.462	
2,700.00	2,687.61	2,673.61	2,673.61	7.15	53.47	-165.84	-86.32	29.13	148.30	89.07	59.23	2.504	
2,800.00	2,787.30	2,773.30	2,773.30	7.36	55.47	-166.58	-86.32	29.13	155.94	94.41	61.53	2.534	
2,900.00	2,887.18	2,873.18	2,873.18	7.54	57.46	-167.00	-86.32	29.13	160.63	96.85	63.78	2.518	
3,007.84	2,995.00	2,981.00	2,981.00	7.74	59.62	17.57	-86.32	29.13	162.36	96.19	66.17	2.454	
3,100.00	3,087.16	3,073.16	3,073.16	7.89	61.46	17.57	-86.32	29.13	162.36	94.17	68.19	2.381	
3,200.00	3,187.16	3,173.16	3,173.16	8.04	63.46	17.57	-86.32	29.13	162.36	91.99	70.38	2.307	
3,300.00	3,287.16	3,273.16	3,273.16	8.20	65.46	17.57	-86.32	29.13	162.36	89.80	72.57	2.238	
3,400.00	3,387.16	3,373.16	3,373.16	8.36	67.46	17.57	-86.32	29.13	162.36	87.61	74.75	2.172	
3,500.00	3,487.16	3,473.16	3,473.16	8.53	69.46	17.57	-86.32	29.13	162.36	85.42	76.94	2.110	
3,600.00	3,587.16	3,573.16	3,573.16	8.69	71.46	17.57	-86.32	29.13	162.36	83.23	79.14	2.052	
3,700.00	3,687.16	3,673.16	3,673.16	8.86	73.46	17.57	-86.32	29.13	162.36	81.03	81.33	1.996	
3,800.00	3,787.16	3,773.16	3,773.16	9.03	75.46	17.57	-86.32	29.13	162.36	78.84	83.53	1.944	
3,900.00	3,887.16	3,873.16	3,873.16	9.21	77.46	17.57	-86.32	29.13	162.36	76.64	85.72	1.894	
4,000.00	3,987.16	3,973.16	3,973.16	9.38	79.46	17.57	-86.32	29.13	162.36	74.44	87.92	1.847	
4,100.00	4,087.16	4,073.16	4,073.16	9.56	81.46	17.57	-86.32	29.13	162.36	72.24	90.12	1.802	
4,200.00	4,187.16	4,173.16	4,173.16	9.74	83.46	17.57	-86.32	29.13	162.36	70.04	92.32	1.759	
4,300.00	4,287.16	4,273.16	4,273.16	9.92	85.46	17.57	-86.32	29.13	162.36	67.84	94.53	1.718	
4,400.00	4,387.16	4,373.16	4,373.16	10.11	87.46	17.57	-86.32	29.13	162.36	65.64	96.73	1.679	
4,500.00	4,487.16	4,473.16	4,473.16	10.29	89.46	17.57	-86.32	29.13	162.36	63.43	98.93	1.641	
4,600.00	4,587.16	4,573.16	4,573.16	10.48	91.46	17.57	-86.32	29.13	162.36	61.23	101.14	1.605	
4,700.00	4,687.16	4,673.16	4,673.16	10.67	93.46	17.57	-86.32	29.13	162.36	59.02	103.34	1.571	
4,800.00	4,787.16	4,773.16	4,773.16	10.86	95.46	17.57	-86.32	29.13	162.36	56.81	105.55	1.538	
4,900.00	4,887.16	4,873.16	4,873.16	11.05	97.46	17.57	-86.32	29.13	162.36	54.61	107.76	1.507	
5,000.00	4,987.16	4,973.16	4,973.16	11.24	99.46	17.57	-86.32	29.13	162.36	52.40	109.97	1.476	Level 3
5,100.00	5,087.16	5,073.16	5,073.16	11.43	101.46	17.57	-86.32	29.13	162.36	50.19	112.18	1.447	Level 3
5,200.00	5,187.16	5,173.16	5,173.16	11.63	103.46	17.57	-86.32	29.13	162.36	47.98	114.39	1.419	Level 3
5,300.00	5,287.16	5,273.16	5,273.16	11.82	105.46	17.57	-86.32	29.13	162.36	45.77	116.60	1.393	Level 3
5,400.00	5,387.16	5,373.16	5,373.16	12.02	107.46	17.57	-86.32	29.13	162.36	43.56	118.81	1.367	Level 3
5,500.00	5,487.16	5,473.16	5,473.16	12.22	109.46	17.57	-86.32	29.13	162.36	41.35	121.02	1.342	Level 3
5,600.00	5,587.16	5,573.16	5,573.16	12.42	111.46	17.57	-86.32	29.13	162.36	39.13	123.23	1.318	Level 3
5,700.00	5,687.16	5,673.16	5,673.16	12.62	113.46	17.57	-86.32	29.13	162.36	36.92	125.44	1.294	Level 3
5,800.00	5,787.16	5,773.16	5,773.16	12.82	115.46	17.57	-86.32	29.13	162.36	34.71	127.65	1.272	Level 3
5,900.00	5,887.16	5,873.16	5,873.16	13.02	117.46	17.57	-86.32	29.13	162.36	32.50	129.87	1.250	Level 3
6,000.00	5,987.16	5,973.16	5,973.16	13.22	119.46	17.57	-86.32	29.13	162.36	30.28	132.08	1.229	Level 2
6,100.00	6,087.16	6,073.16	6,073.16	13.42	121.46	17.57	-86.32	29.13	162.36	28.07	134.30	1.209	Level 2
6,200.00	6,187.16	6,173.16	6,173.16	13.62	123.46	17.57	-86.32	29.13	162.36	25.86	136.51	1.189	Level 2
6,300.00	6,287.16	6,273.16	6,273.16	13.83	125.46	17.57	-86.32	29.13	162.36	23.64	138.72	1.170	Level 2

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - CIGE 98D - OH - NO SURVEYS — **Offset Site Error:** 0.00 ft

Survey Program: 9000-UNKNOWN — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,400.00	6,387.16	6,373.16	6,373.16	14.03	127.46	17.57	-86.32	29.13	162.36	21.43	140.94	1.152	Level 2
6,500.00	6,487.16	6,473.16	6,473.16	14.24	129.46	17.57	-86.32	29.13	162.36	19.21	143.15	1.134	Level 2
6,600.00	6,587.16	6,573.16	6,573.16	14.44	131.46	17.57	-86.32	29.13	162.36	16.99	145.37	1.117	Level 2
6,700.00	6,687.16	6,673.16	6,673.16	14.65	133.46	17.57	-86.32	29.13	162.36	14.78	147.59	1.100	Level 2
6,800.00	6,787.16	6,773.16	6,773.16	14.86	135.46	17.57	-86.32	29.13	162.36	12.56	149.80	1.084	Level 2
6,900.00	6,887.16	6,873.16	6,873.16	15.06	137.46	17.57	-86.32	29.13	162.36	10.35	152.02	1.068	Level 2
7,000.00	6,987.16	6,973.16	6,973.16	15.27	139.46	17.57	-86.32	29.13	162.36	8.13	154.23	1.053	Level 2
7,100.00	7,087.16	7,073.16	7,073.16	15.48	141.46	17.57	-86.32	29.13	162.36	5.91	156.45	1.038	Level 2
7,200.00	7,187.16	7,173.16	7,173.16	15.69	143.46	17.57	-86.32	29.13	162.36	3.70	158.67	1.023	Level 2
7,300.00	7,287.16	7,273.16	7,273.16	15.90	145.46	17.57	-86.32	29.13	162.36	1.48	160.89	1.009	Level 2
7,400.00	7,387.16	7,373.16	7,373.16	16.11	147.46	17.57	-86.32	29.13	162.36	-0.74	163.10	0.995	Level 1
7,500.00	7,487.16	7,473.16	7,473.16	16.32	149.46	17.57	-86.32	29.13	162.36	-2.96	165.32	0.982	Level 1
7,600.00	7,587.16	7,573.16	7,573.16	16.53	151.46	17.57	-86.32	29.13	162.36	-5.17	167.54	0.969	Level 1
7,700.00	7,687.16	7,673.16	7,673.16	16.74	153.46	17.57	-86.32	29.13	162.36	-7.39	169.76	0.956	Level 1
7,800.00	7,787.16	7,773.16	7,773.16	16.95	155.46	17.57	-86.32	29.13	162.36	-9.61	171.98	0.944	Level 1
7,900.00	7,887.16	7,873.16	7,873.16	17.16	157.46	17.57	-86.32	29.13	162.36	-11.83	174.19	0.932	Level 1
8,000.00	7,987.16	7,973.16	7,973.16	17.37	159.46	17.57	-86.32	29.13	162.36	-14.05	176.41	0.920	Level 1
8,100.00	8,087.16	8,073.16	8,073.16	17.58	161.46	17.57	-86.32	29.13	162.36	-16.27	178.63	0.909	Level 1
8,200.00	8,187.16	8,173.16	8,173.16	17.80	163.46	17.57	-86.32	29.13	162.36	-18.49	180.85	0.898	Level 1
8,300.00	8,287.16	8,273.16	8,273.16	18.01	165.46	17.57	-86.32	29.13	162.36	-20.70	183.07	0.887	Level 1
8,400.00	8,387.16	8,373.16	8,373.16	18.22	167.46	17.57	-86.32	29.13	162.36	-22.92	185.29	0.876	Level 1
8,500.00	8,487.16	8,473.16	8,473.16	18.44	169.46	17.57	-86.32	29.13	162.36	-25.14	187.51	0.866	Level 1
8,600.00	8,587.16	8,573.16	8,573.16	18.65	171.46	17.57	-86.32	29.13	162.36	-27.36	189.73	0.856	Level 1
8,700.00	8,687.16	8,673.16	8,673.16	18.86	173.46	17.57	-86.32	29.13	162.36	-29.58	191.95	0.846	Level 1
8,800.00	8,787.16	8,773.16	8,773.16	19.08	175.46	17.57	-86.32	29.13	162.36	-31.80	194.17	0.836	Level 1
8,900.00	8,887.16	8,873.16	8,873.16	19.29	177.46	17.57	-86.32	29.13	162.36	-34.02	196.39	0.827	Level 1
9,000.00	8,987.16	8,973.16	8,973.16	19.51	179.46	17.57	-86.32	29.13	162.36	-36.24	198.61	0.818	Level 1, ES, SF
9,100.00	9,087.16	9,000.00	9,000.00	19.72	180.00	17.57	-86.32	29.13	178.08	-21.28	199.36	0.893	Level 1
9,200.00	9,187.16	9,000.00	9,000.00	19.94	180.00	17.57	-86.32	29.13	237.37	37.79	199.58	1.189	Level 2
9,300.00	9,287.16	9,000.00	9,000.00	20.15	180.00	17.57	-86.32	29.13	317.77	117.96	199.80	1.590	
9,400.00	9,387.16	9,000.00	9,000.00	20.37	180.00	17.57	-86.32	29.13	406.95	206.93	200.02	2.035	
9,500.00	9,487.16	9,000.00	9,000.00	20.58	180.00	17.57	-86.32	29.13	500.24	299.99	200.24	2.498	
9,600.00	9,587.16	9,000.00	9,000.00	20.80	180.00	17.57	-86.32	29.13	595.71	395.25	200.47	2.972	
9,700.00	9,687.16	9,000.00	9,000.00	21.01	180.00	17.57	-86.32	29.13	692.46	491.78	200.69	3.450	
9,800.00	9,787.16	9,000.00	9,000.00	21.23	180.00	17.57	-86.32	29.13	790.02	589.11	200.91	3.932	
9,900.00	9,887.16	9,000.00	9,000.00	21.45	180.00	17.57	-86.32	29.13	888.12	687.00	201.13	4.416	
10,000.00	9,987.16	9,000.00	9,000.00	21.66	180.00	17.57	-86.32	29.13	986.61	785.26	201.35	4.900	
10,100.00	10,087.16	9,000.00	9,000.00	21.88	180.00	17.57	-86.32	29.13	1,085.37	883.80	201.57	5.385	
10,200.00	10,187.16	9,000.00	9,000.00	22.10	180.00	17.57	-86.32	29.13	1,184.34	982.55	201.79	5.869	
10,300.00	10,287.16	9,000.00	9,000.00	22.31	180.00	17.57	-86.32	29.13	1,283.47	1,081.46	202.01	6.353	
10,400.00	10,387.16	9,000.00	9,000.00	22.53	180.00	17.57	-86.32	29.13	1,382.72	1,180.49	202.23	6.837	
10,500.00	10,487.16	9,000.00	9,000.00	22.75	180.00	17.57	-86.32	29.13	1,482.08	1,279.62	202.45	7.321	
10,600.00	10,587.16	9,000.00	9,000.00	22.97	180.00	17.57	-86.32	29.13	1,581.51	1,378.84	202.68	7.803	
10,655.84	10,643.00	9,000.00	9,000.00	23.09	180.00	17.57	-86.32	29.13	1,637.07	1,434.27	202.80	8.072	

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25H3DS - OH - PLAN #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD SDI — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-9.70	9.83	-1.68	9.98				
100.00	100.00	100.00	100.00	0.10	0.10	-9.70	9.83	-1.68	9.98	9.78	0.19	51.610	
200.00	200.00	200.00	200.00	0.32	0.32	-9.70	9.83	-1.68	9.98	9.33	0.64	15.519	
300.00	300.00	300.00	300.00	0.55	0.55	-9.70	9.83	-1.68	9.98	8.88	1.09	9.133	CC, ES
400.00	400.00	399.61	399.59	0.77	0.77	-10.11	11.52	-2.05	11.71	10.17	1.54	7.601	SF
500.00	500.00	498.99	498.83	1.00	1.00	-10.83	16.58	-3.17	16.92	14.93	1.99	8.498	
600.00	599.98	597.69	597.16	1.19	1.24	164.86	24.92	-5.02	27.25	24.83	2.42	11.280	
700.00	699.84	695.01	693.76	1.38	1.51	165.97	36.38	-7.55	44.31	41.49	2.82	15.695	
800.00	799.45	790.29	787.90	1.59	1.80	166.89	50.70	-10.72	67.99	64.76	3.24	20.990	
820.88	820.21	809.88	807.19	1.64	1.87	167.05	54.02	-11.45	73.76	70.43	3.33	22.169	
900.00	898.83	883.29	879.27	1.83	2.13	167.52	67.61	-14.46	97.10	93.43	3.67	26.466	
1,000.00	998.21	974.38	968.17	2.10	2.50	167.75	86.98	-18.74	129.33	125.23	4.11	31.479	
1,100.00	1,097.58	1,063.44	1,054.44	2.37	2.90	167.80	108.57	-23.52	164.51	159.96	4.55	36.119	
1,200.00	1,196.95	1,150.39	1,137.95	2.65	3.34	167.75	132.17	-28.73	202.54	197.53	5.01	40.462	
1,300.00	1,296.33	1,235.13	1,218.62	2.94	3.81	167.66	157.54	-34.34	243.31	237.85	5.46	44.564	
1,400.00	1,395.70	1,319.38	1,298.03	3.23	4.32	167.54	185.00	-40.42	286.66	280.74	5.92	48.423	
1,500.00	1,495.07	1,409.11	1,382.34	3.53	4.88	167.44	214.96	-47.04	330.80	324.40	6.40	51.686	
1,600.00	1,594.45	1,498.84	1,466.66	3.82	5.46	167.36	244.93	-53.67	374.95	368.06	6.88	54.465	
1,700.00	1,693.82	1,588.57	1,550.98	4.12	6.04	167.30	274.89	-60.30	419.09	411.72	7.37	56.843	
1,800.00	1,793.19	1,678.29	1,635.30	4.43	6.63	167.25	304.86	-66.92	463.23	455.37	7.86	58.900	
1,900.00	1,892.57	1,768.02	1,719.61	4.73	7.22	167.21	334.82	-73.55	507.38	499.02	8.36	60.695	
2,000.00	1,991.94	1,857.75	1,803.93	5.03	7.81	167.17	364.79	-80.18	551.52	542.67	8.86	62.272	
2,100.00	2,091.31	1,947.48	1,888.25	5.34	8.40	167.14	394.75	-86.80	595.67	586.31	9.36	63.668	
2,200.00	2,190.69	2,037.21	1,972.56	5.64	9.00	167.11	424.72	-93.43	639.81	629.96	9.86	64.911	
2,300.00	2,290.06	2,126.93	2,056.88	5.95	9.59	167.09	454.68	-100.05	683.96	673.60	10.36	66.025	
2,400.00	2,389.43	2,216.66	2,141.20	6.26	10.19	167.07	484.65	-106.68	728.11	717.24	10.86	67.028	
2,500.00	2,488.81	2,306.39	2,225.51	6.56	10.79	167.06	514.61	-113.31	772.25	760.88	11.37	67.935	
2,600.00	2,588.18	2,396.12	2,309.83	6.87	11.39	167.04	544.58	-119.93	816.40	804.52	11.87	68.759	
2,641.12	2,629.04	2,433.02	2,344.50	7.00	11.64	167.03	556.90	-122.66	834.55	822.47	12.08	69.075	
2,700.00	2,687.61	2,486.07	2,394.36	7.15	11.99	167.13	574.62	-126.58	860.08	847.67	12.41	69.299	
2,800.00	2,787.30	2,577.18	2,479.97	7.36	12.60	167.24	605.04	-133.30	901.29	888.34	12.95	69.608	
2,900.00	2,887.18	2,669.46	2,566.68	7.54	13.22	167.30	635.86	-140.12	939.77	926.29	13.48	69.717	
3,007.84	2,995.00	2,787.88	2,678.12	7.74	13.97	-8.01	674.97	-148.77	977.87	963.77	14.10	69.343	
3,100.00	3,087.16	2,922.05	2,805.98	7.89	14.62	-8.20	714.62	-157.54	1,005.70	991.07	14.63	68.756	
3,200.00	3,187.16	3,071.88	2,950.85	8.04	15.26	-8.36	751.94	-165.79	1,031.15	1,015.98	15.17	67.961	
3,300.00	3,287.16	3,225.51	3,101.24	8.20	15.82	-8.48	782.47	-172.54	1,051.47	1,035.76	15.70	66.954	
3,400.00	3,387.16	3,382.15	3,256.09	8.36	16.28	-8.57	805.45	-177.62	1,066.46	1,050.25	16.22	65.769	
3,500.00	3,487.16	3,540.96	3,414.14	8.53	16.62	-8.63	820.28	-180.90	1,076.01	1,059.31	16.70	64.438	
3,600.00	3,587.16	3,700.96	3,574.00	8.69	16.86	-8.65	826.55	-182.29	1,080.01	1,062.86	17.15	62.963	
3,700.00	3,687.16	3,814.12	3,687.16	8.86	16.97	-8.65	826.76	-182.33	1,080.15	1,062.62	17.53	61.631	
3,800.00	3,787.16	3,914.12	3,787.16	9.03	17.06	-8.65	826.76	-182.33	1,080.15	1,062.25	17.89	60.364	
3,900.00	3,887.16	4,014.12	3,887.16	9.21	17.16	-8.65	826.76	-182.33	1,080.15	1,061.88	18.27	59.136	
4,000.00	3,987.16	4,114.12	3,987.16	9.38	17.27	-8.65	826.76	-182.33	1,080.15	1,061.51	18.64	57.947	
4,100.00	4,087.16	4,214.12	4,087.16	9.56	17.37	-8.65	826.76	-182.33	1,080.15	1,061.13	19.02	56.795	
4,200.00	4,187.16	4,314.12	4,187.16	9.74	17.48	-8.65	826.76	-182.33	1,080.15	1,060.75	19.40	55.680	
4,300.00	4,287.16	4,414.12	4,287.16	9.92	17.59	-8.65	826.76	-182.33	1,080.15	1,060.36	19.78	54.600	
4,400.00	4,387.16	4,514.12	4,387.16	10.11	17.70	-8.65	826.76	-182.33	1,080.15	1,059.98	20.17	53.554	
4,500.00	4,487.16	4,614.12	4,487.16	10.29	17.81	-8.65	826.76	-182.33	1,080.15	1,059.59	20.56	52.540	
4,600.00	4,587.16	4,714.12	4,587.16	10.48	17.93	-8.65	826.76	-182.33	1,080.15	1,059.20	20.95	51.559	
4,700.00	4,687.16	4,814.12	4,687.16	10.67	18.05	-8.65	826.76	-182.33	1,080.15	1,058.80	21.34	50.608	
4,800.00	4,787.16	4,914.12	4,787.16	10.86	18.17	-8.65	826.76	-182.33	1,080.15	1,058.41	21.74	49.687	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25H3DS - OH - PLAN #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD SDI — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,887.16	5,014.12	4,887.16	11.05	18.29	-8.65	826.76	-182.33	1,080.15	1,058.01	22.14	48.794	
5,000.00	4,987.16	5,114.12	4,987.16	11.24	18.41	-8.65	826.76	-182.33	1,080.15	1,057.61	22.54	47.929	
5,100.00	5,087.16	5,214.12	5,087.16	11.43	18.54	-8.65	826.76	-182.33	1,080.15	1,057.21	22.94	47.090	
5,200.00	5,187.16	5,314.12	5,187.16	11.63	18.67	-8.65	826.76	-182.33	1,080.15	1,056.81	23.34	46.277	
5,300.00	5,287.16	5,414.12	5,287.16	11.82	18.79	-8.65	826.76	-182.33	1,080.15	1,056.40	23.75	45.488	
5,400.00	5,387.16	5,514.12	5,387.16	12.02	18.93	-8.65	826.76	-182.33	1,080.15	1,056.00	24.15	44.723	
5,500.00	5,487.16	5,614.12	5,487.16	12.22	19.06	-8.65	826.76	-182.33	1,080.15	1,055.59	24.56	43.980	
5,600.00	5,587.16	5,714.12	5,587.16	12.42	19.19	-8.65	826.76	-182.33	1,080.15	1,055.18	24.97	43.259	
5,700.00	5,687.16	5,814.12	5,687.16	12.62	19.33	-8.65	826.76	-182.33	1,080.15	1,054.77	25.38	42.560	
5,800.00	5,787.16	5,914.12	5,787.16	12.82	19.47	-8.65	826.76	-182.33	1,080.15	1,054.36	25.79	41.880	
5,900.00	5,887.16	6,014.12	5,887.16	13.02	19.61	-8.65	826.76	-182.33	1,080.15	1,053.94	26.20	41.220	
6,000.00	5,987.16	6,114.12	5,987.16	13.22	19.75	-8.65	826.76	-182.33	1,080.15	1,053.53	26.62	40.578	
6,100.00	6,087.16	6,214.12	6,087.16	13.42	19.89	-8.65	826.76	-182.33	1,080.15	1,053.11	27.03	39.955	
6,200.00	6,187.16	6,314.12	6,187.16	13.62	20.03	-8.65	826.76	-182.33	1,080.15	1,052.70	27.45	39.349	
6,300.00	6,287.16	6,414.12	6,287.16	13.83	20.18	-8.65	826.76	-182.33	1,080.15	1,052.28	27.87	38.760	
6,400.00	6,387.16	6,514.12	6,387.16	14.03	20.33	-8.65	826.76	-182.33	1,080.15	1,051.86	28.29	38.186	
6,500.00	6,487.16	6,614.12	6,487.16	14.24	20.48	-8.65	826.76	-182.33	1,080.15	1,051.44	28.71	37.629	
6,600.00	6,587.16	6,714.12	6,587.16	14.44	20.63	-8.65	826.76	-182.33	1,080.15	1,051.02	29.13	37.086	
6,700.00	6,687.16	6,814.12	6,687.16	14.65	20.78	-8.65	826.76	-182.33	1,080.15	1,050.60	29.55	36.557	
6,800.00	6,787.16	6,914.12	6,787.16	14.86	20.93	-8.65	826.76	-182.33	1,080.15	1,050.18	29.97	36.043	
6,900.00	6,887.16	7,014.12	6,887.16	15.06	21.08	-8.65	826.76	-182.33	1,080.15	1,049.76	30.39	35.542	
7,000.00	6,987.16	7,114.12	6,987.16	15.27	21.24	-8.65	826.76	-182.33	1,080.15	1,049.33	30.81	35.053	
7,100.00	7,087.16	7,214.12	7,087.16	15.48	21.39	-8.65	826.76	-182.33	1,080.15	1,048.91	31.24	34.577	
7,200.00	7,187.16	7,314.12	7,187.16	15.69	21.55	-8.65	826.76	-182.33	1,080.15	1,048.48	31.66	34.114	
7,300.00	7,287.16	7,414.12	7,287.16	15.90	21.71	-8.65	826.76	-182.33	1,080.15	1,048.06	32.09	33.661	
7,400.00	7,387.16	7,514.12	7,387.16	16.11	21.87	-8.65	826.76	-182.33	1,080.15	1,047.63	32.51	33.220	
7,500.00	7,487.16	7,614.12	7,487.16	16.32	22.03	-8.65	826.76	-182.33	1,080.15	1,047.21	32.94	32.790	
7,600.00	7,587.16	7,714.12	7,587.16	16.53	22.19	-8.65	826.76	-182.33	1,080.15	1,046.78	33.37	32.370	
7,700.00	7,687.16	7,814.12	7,687.16	16.74	22.36	-8.65	826.76	-182.33	1,080.15	1,046.35	33.80	31.960	
7,800.00	7,787.16	7,914.12	7,787.16	16.95	22.52	-8.65	826.76	-182.33	1,080.15	1,045.92	34.23	31.560	
7,900.00	7,887.16	8,014.12	7,887.16	17.16	22.69	-8.65	826.76	-182.33	1,080.15	1,045.49	34.65	31.170	
8,000.00	7,987.16	8,114.12	7,987.16	17.37	22.85	-8.65	826.76	-182.33	1,080.15	1,045.06	35.08	30.788	
8,100.00	8,087.16	8,214.12	8,087.16	17.58	23.02	-8.65	826.76	-182.33	1,080.15	1,044.63	35.51	30.415	
8,200.00	8,187.16	8,314.12	8,187.16	17.80	23.19	-8.65	826.76	-182.33	1,080.15	1,044.20	35.94	30.051	
8,300.00	8,287.16	8,414.12	8,287.16	18.01	23.36	-8.65	826.76	-182.33	1,080.15	1,043.77	36.37	29.695	
8,400.00	8,387.16	8,514.12	8,387.16	18.22	23.53	-8.65	826.76	-182.33	1,080.15	1,043.34	36.81	29.347	
8,500.00	8,487.16	8,614.12	8,487.16	18.44	23.70	-8.65	826.76	-182.33	1,080.15	1,042.91	37.24	29.007	
8,600.00	8,587.16	8,714.12	8,587.16	18.65	23.87	-8.65	826.76	-182.33	1,080.15	1,042.48	37.67	28.674	
8,700.00	8,687.16	8,814.12	8,687.16	18.86	24.04	-8.65	826.76	-182.33	1,080.15	1,042.05	38.10	28.349	
8,800.00	8,787.16	8,914.12	8,787.16	19.08	24.22	-8.65	826.76	-182.33	1,080.15	1,041.61	38.54	28.030	
8,900.00	8,887.16	9,014.12	8,887.16	19.29	24.39	-8.65	826.76	-182.33	1,080.15	1,041.18	38.97	27.718	
9,000.00	8,987.16	9,114.12	8,987.16	19.51	24.57	-8.65	826.76	-182.33	1,080.15	1,040.75	39.40	27.413	
9,100.00	9,087.16	9,214.12	9,087.16	19.72	24.74	-8.65	826.76	-182.33	1,080.15	1,040.31	39.84	27.115	
9,200.00	9,187.16	9,314.12	9,187.16	19.94	24.92	-8.65	826.76	-182.33	1,080.15	1,039.88	40.27	26.822	
9,300.00	9,287.16	9,414.12	9,287.16	20.15	25.10	-8.65	826.76	-182.33	1,080.15	1,039.44	40.71	26.536	
9,400.00	9,387.16	9,514.12	9,387.16	20.37	25.28	-8.65	826.76	-182.33	1,080.15	1,039.01	41.14	26.255	
9,500.00	9,487.16	9,614.12	9,487.16	20.58	25.46	-8.65	826.76	-182.33	1,080.15	1,038.57	41.58	25.980	
9,600.00	9,587.16	9,714.12	9,587.16	20.80	25.64	-8.65	826.76	-182.33	1,080.15	1,038.14	42.01	25.711	
9,646.96	9,634.11	9,761.08	9,634.11	20.90	25.72	-8.65	826.76	-182.33	1,080.15	1,037.93	42.22	25.586	
9,700.00	9,687.16	9,776.97	9,650.00	21.01	25.75	-8.65	826.76	-182.33	1,080.79	1,038.42	42.37	25.510	

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25H3DS - OH - PLAN #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD SDI — **Offset Well Error:** 0.00 ft

Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,800.00	9,787.16	9,776.97	9,650.00	21.23	25.75	-8.65	826.76	-182.33	1,088.82	1,046.23	42.59	25.567	
9,900.00	9,887.16	9,776.97	9,650.00	21.45	25.75	-8.65	826.76	-182.33	1,105.88	1,063.07	42.81	25.833	
10,000.00	9,987.16	9,776.97	9,650.00	21.66	25.75	-8.65	826.76	-182.33	1,131.54	1,088.52	43.03	26.297	
10,100.00	10,087.16	9,776.97	9,650.00	21.88	25.75	-8.65	826.76	-182.33	1,165.26	1,122.01	43.25	26.942	
10,200.00	10,187.16	9,776.97	9,650.00	22.10	25.75	-8.65	826.76	-182.33	1,206.34	1,162.87	43.47	27.750	
10,300.00	10,287.16	9,776.97	9,650.00	22.31	25.75	-8.65	826.76	-182.33	1,254.07	1,210.38	43.69	28.702	
10,400.00	10,387.16	9,776.97	9,650.00	22.53	25.75	-8.65	826.76	-182.33	1,307.72	1,263.80	43.91	29.779	
10,500.00	10,487.16	9,776.97	9,650.00	22.75	25.75	-8.65	826.76	-182.33	1,366.58	1,322.45	44.13	30.964	
10,600.00	10,587.16	9,776.97	9,650.00	22.97	25.75	-8.65	826.76	-182.33	1,430.03	1,385.67	44.36	32.240	
10,655.84	10,643.00	9,776.97	9,650.00	23.09	25.75	-8.65	826.76	-182.33	1,467.23	1,422.75	44.48	32.986	

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25I2AS - OH - PLAN #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD SDI — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	170.30	-9.83	1.68	9.98				
100.00	100.00	100.00	100.00	0.10	0.10	170.30	-9.83	1.68	9.98	9.78	0.19	51.610	
200.00	200.00	200.00	200.00	0.32	0.32	170.30	-9.83	1.68	9.98	9.33	0.64	15.519	
300.00	300.00	300.00	300.00	0.55	0.55	170.30	-9.83	1.68	9.98	8.88	1.09	9.133	
400.00	400.00	400.28	400.26	0.77	0.77	174.73	-8.33	0.77	8.37	6.83	1.54	5.432	
500.00	500.00	500.32	500.16	1.00	1.00	-153.08	-3.85	-1.95	4.32	2.33	2.00	2.165	
529.80	529.80	530.04	529.79	1.05	1.07	55.28	-1.94	-3.11	3.58	1.45	2.13	1.684	CC, ES, SF
600.00	599.98	599.71	599.16	1.19	1.24	125.09	3.55	-6.45	8.28	5.86	2.41	3.427	
700.00	699.84	697.77	696.49	1.38	1.51	144.64	13.73	-12.64	24.18	21.35	2.83	8.558	
800.00	799.45	793.90	791.46	1.59	1.82	150.25	26.46	-20.37	46.91	43.66	3.25	14.427	
820.88	820.21	813.68	810.93	1.64	1.88	150.95	29.42	-22.17	52.46	49.12	3.34	15.696	
900.00	898.83	888.33	884.22	1.83	2.15	152.72	41.56	-29.55	74.98	71.28	3.70	20.277	
1,000.00	998.21	983.96	977.97	2.10	2.52	153.81	57.70	-39.36	104.17	100.01	4.16	25.049	
1,100.00	1,097.58	1,079.60	1,071.71	2.37	2.90	154.43	73.84	-49.16	133.38	128.76	4.63	28.817	
1,200.00	1,196.95	1,175.23	1,165.46	2.65	3.29	154.82	89.98	-58.97	162.61	157.50	5.11	31.844	
1,300.00	1,296.33	1,270.86	1,259.21	2.94	3.68	155.09	106.12	-68.78	191.83	186.24	5.59	34.320	
1,400.00	1,395.70	1,366.49	1,352.96	3.23	4.08	155.29	122.26	-78.58	221.06	214.98	6.08	36.376	
1,500.00	1,495.07	1,462.12	1,446.70	3.53	4.48	155.45	138.40	-88.39	250.29	243.72	6.57	38.108	
1,600.00	1,594.45	1,557.75	1,540.45	3.82	4.88	155.57	154.54	-98.20	279.52	272.46	7.06	39.584	
1,700.00	1,693.82	1,653.38	1,634.20	4.12	5.28	155.67	170.68	-108.00	308.76	301.20	7.56	40.855	
1,800.00	1,793.19	1,749.01	1,727.94	4.43	5.69	155.75	186.82	-117.81	337.99	329.94	8.05	41.962	
1,900.00	1,892.57	1,844.64	1,821.69	4.73	6.09	155.82	202.96	-127.62	367.23	358.67	8.55	42.932	
2,000.00	1,991.94	1,940.27	1,915.44	5.03	6.50	155.87	219.10	-137.42	396.46	387.41	9.05	43.789	
2,100.00	2,091.31	2,035.90	2,009.18	5.34	6.90	155.92	235.24	-147.23	425.70	416.14	9.55	44.552	
2,200.00	2,190.69	2,131.53	2,102.93	5.64	7.31	155.97	251.38	-157.04	454.93	444.88	10.06	45.235	
2,300.00	2,290.06	2,227.16	2,196.68	5.95	7.72	156.01	267.52	-166.85	484.17	473.61	10.56	45.850	
2,400.00	2,389.43	2,322.79	2,290.43	6.26	8.12	156.04	283.66	-176.65	513.40	502.34	11.06	46.406	
2,500.00	2,488.81	2,418.42	2,384.17	6.56	8.53	156.07	299.80	-186.46	542.64	531.07	11.57	46.911	
2,600.00	2,588.18	2,514.05	2,477.92	6.87	8.94	156.10	315.94	-196.27	571.88	559.80	12.07	47.372	
2,641.12	2,629.04	2,553.38	2,516.47	7.00	9.11	156.11	322.58	-200.30	583.90	571.62	12.28	47.550	
2,700.00	2,687.61	2,618.36	2,580.24	7.15	9.35	156.23	333.25	-206.79	600.37	587.78	12.59	47.674	
2,800.00	2,787.30	2,737.34	2,697.58	7.36	9.71	156.35	350.06	-217.00	623.59	610.52	13.07	47.701	
2,900.00	2,887.18	2,858.79	2,818.00	7.54	10.03	156.38	363.44	-225.13	640.56	627.03	13.53	47.337	
3,007.84	2,995.00	2,991.67	2,950.33	7.74	10.33	-18.98	373.71	-231.37	651.70	637.69	14.01	46.507	
3,100.00	3,087.16	3,106.03	3,064.53	7.89	10.53	-19.09	378.86	-234.50	656.45	642.06	14.39	45.620	
3,200.00	3,187.16	3,228.68	3,187.16	8.04	10.70	-19.13	380.60	-235.55	658.05	643.28	14.77	44.542	
3,300.00	3,287.16	3,328.68	3,287.16	8.20	10.84	-19.13	380.60	-235.55	658.05	642.91	15.14	43.468	
3,400.00	3,387.16	3,428.68	3,387.16	8.36	10.98	-19.13	380.60	-235.55	658.05	642.53	15.52	42.406	
3,500.00	3,487.16	3,528.68	3,487.16	8.53	11.12	-19.13	380.60	-235.55	658.05	642.15	15.90	41.384	
3,600.00	3,587.16	3,628.68	3,587.16	8.69	11.27	-19.13	380.60	-235.55	658.05	641.76	16.29	40.402	
3,700.00	3,687.16	3,728.68	3,687.16	8.86	11.42	-19.13	380.60	-235.55	658.05	641.37	16.68	39.458	
3,800.00	3,787.16	3,828.68	3,787.16	9.03	11.57	-19.13	380.60	-235.55	658.05	640.98	17.07	38.550	
3,900.00	3,887.16	3,928.68	3,887.16	9.21	11.72	-19.13	380.60	-235.55	658.05	640.59	17.47	37.678	
4,000.00	3,987.16	4,028.68	3,987.16	9.38	11.88	-19.13	380.60	-235.55	658.05	640.19	17.86	36.838	
4,100.00	4,087.16	4,128.68	4,087.16	9.56	12.04	-19.13	380.60	-235.55	658.05	639.79	18.26	36.030	
4,200.00	4,187.16	4,228.68	4,187.16	9.74	12.20	-19.13	380.60	-235.55	658.05	639.38	18.67	35.253	
4,300.00	4,287.16	4,328.68	4,287.16	9.92	12.36	-19.13	380.60	-235.55	658.05	638.98	19.07	34.505	
4,400.00	4,387.16	4,428.68	4,387.16	10.11	12.52	-19.13	380.60	-235.55	658.05	638.57	19.48	33.784	
4,500.00	4,487.16	4,528.68	4,487.16	10.29	12.69	-19.13	380.60	-235.55	658.05	638.16	19.89	33.090	
4,600.00	4,587.16	4,628.68	4,587.16	10.48	12.86	-19.13	380.60	-235.55	658.05	637.75	20.30	32.421	
4,700.00	4,687.16	4,728.68	4,687.16	10.67	13.03	-19.13	380.60	-235.55	658.05	637.34	20.71	31.776	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25I2AS - OH - PLAN #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD SDI — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,800.00	4,787.16	4,828.68	4,787.16	10.86	13.20	-19.13	380.60	-235.55	658.05	636.93	21.12	31.154	
4,900.00	4,887.16	4,928.68	4,887.16	11.05	13.37	-19.13	380.60	-235.55	658.05	636.51	21.54	30.554	
5,000.00	4,987.16	5,028.68	4,987.16	11.24	13.55	-19.13	380.60	-235.55	658.05	636.10	21.95	29.974	
5,100.00	5,087.16	5,128.68	5,087.16	11.43	13.72	-19.13	380.60	-235.55	658.05	635.68	22.37	29.415	
5,200.00	5,187.16	5,228.68	5,187.16	11.63	13.90	-19.13	380.60	-235.55	658.05	635.26	22.79	28.874	
5,300.00	5,287.16	5,328.68	5,287.16	11.82	14.08	-19.13	380.60	-235.55	658.05	634.84	23.21	28.351	
5,400.00	5,387.16	5,428.68	5,387.16	12.02	14.26	-19.13	380.60	-235.55	658.05	634.42	23.63	27.846	
5,500.00	5,487.16	5,528.68	5,487.16	12.22	14.44	-19.13	380.60	-235.55	658.05	634.00	24.05	27.357	
5,600.00	5,587.16	5,628.68	5,587.16	12.42	14.62	-19.13	380.60	-235.55	658.05	633.57	24.48	26.885	
5,700.00	5,687.16	5,728.68	5,687.16	12.62	14.80	-19.13	380.60	-235.55	658.05	633.15	24.90	26.427	
5,800.00	5,787.16	5,828.68	5,787.16	12.82	14.99	-19.13	380.60	-235.55	658.05	632.73	25.33	25.983	
5,900.00	5,887.16	5,928.68	5,887.16	13.02	15.18	-19.13	380.60	-235.55	658.05	632.30	25.75	25.554	
6,000.00	5,987.16	6,028.68	5,987.16	13.22	15.36	-19.13	380.60	-235.55	658.05	631.87	26.18	25.137	
6,100.00	6,087.16	6,128.68	6,087.16	13.42	15.55	-19.13	380.60	-235.55	658.05	631.45	26.61	24.733	
6,200.00	6,187.16	6,228.68	6,187.16	13.62	15.74	-19.13	380.60	-235.55	658.05	631.02	27.03	24.342	
6,300.00	6,287.16	6,328.68	6,287.16	13.83	15.93	-19.13	380.60	-235.55	658.05	630.59	27.46	23.962	
6,400.00	6,387.16	6,428.68	6,387.16	14.03	16.12	-19.13	380.60	-235.55	658.05	630.16	27.89	23.593	
6,500.00	6,487.16	6,528.68	6,487.16	14.24	16.31	-19.13	380.60	-235.55	658.05	629.73	28.32	23.235	
6,600.00	6,587.16	6,628.68	6,587.16	14.44	16.50	-19.13	380.60	-235.55	658.05	629.30	28.75	22.887	
6,700.00	6,687.16	6,728.68	6,687.16	14.65	16.70	-19.13	380.60	-235.55	658.05	628.87	29.18	22.548	
6,800.00	6,787.16	6,828.68	6,787.16	14.86	16.89	-19.13	380.60	-235.55	658.05	628.44	29.62	22.220	
6,900.00	6,887.16	6,928.68	6,887.16	15.06	17.09	-19.13	380.60	-235.55	658.05	628.00	30.05	21.900	
7,000.00	6,987.16	7,028.68	6,987.16	15.27	17.28	-19.13	380.60	-235.55	658.05	627.57	30.48	21.589	
7,100.00	7,087.16	7,128.68	7,087.16	15.48	17.48	-19.13	380.60	-235.55	658.05	627.14	30.91	21.286	
7,200.00	7,187.16	7,228.68	7,187.16	15.69	17.67	-19.13	380.60	-235.55	658.05	626.70	31.35	20.992	
7,300.00	7,287.16	7,328.68	7,287.16	15.90	17.87	-19.13	380.60	-235.55	658.05	626.27	31.78	20.705	
7,400.00	7,387.16	7,428.68	7,387.16	16.11	18.07	-19.13	380.60	-235.55	658.05	625.83	32.22	20.426	
7,500.00	7,487.16	7,528.68	7,487.16	16.32	18.27	-19.13	380.60	-235.55	658.05	625.40	32.65	20.154	
7,600.00	7,587.16	7,628.68	7,587.16	16.53	18.47	-19.13	380.60	-235.55	658.05	624.96	33.09	19.888	
7,700.00	7,687.16	7,728.68	7,687.16	16.74	18.67	-19.13	380.60	-235.55	658.05	624.53	33.52	19.630	
7,800.00	7,787.16	7,828.68	7,787.16	16.95	18.87	-19.13	380.60	-235.55	658.05	624.09	33.96	19.378	
7,900.00	7,887.16	7,928.68	7,887.16	17.16	19.07	-19.13	380.60	-235.55	658.05	623.66	34.40	19.132	
8,000.00	7,987.16	8,028.68	7,987.16	17.37	19.27	-19.13	380.60	-235.55	658.05	623.22	34.83	18.892	
8,100.00	8,087.16	8,128.68	8,087.16	17.58	19.47	-19.13	380.60	-235.55	658.05	622.78	35.27	18.658	
8,200.00	8,187.16	8,228.68	8,187.16	17.80	19.68	-19.13	380.60	-235.55	658.05	622.34	35.71	18.429	
8,300.00	8,287.16	8,328.68	8,287.16	18.01	19.88	-19.13	380.60	-235.55	658.05	621.91	36.14	18.206	
8,400.00	8,387.16	8,428.68	8,387.16	18.22	20.08	-19.13	380.60	-235.55	658.05	621.47	36.58	17.988	
8,500.00	8,487.16	8,528.68	8,487.16	18.44	20.29	-19.13	380.60	-235.55	658.05	621.03	37.02	17.775	
8,600.00	8,587.16	8,628.68	8,587.16	18.65	20.49	-19.13	380.60	-235.55	658.05	620.59	37.46	17.567	
8,700.00	8,687.16	8,728.68	8,687.16	18.86	20.70	-19.13	380.60	-235.55	658.05	620.15	37.90	17.364	
8,800.00	8,787.16	8,828.68	8,787.16	19.08	20.90	-19.13	380.60	-235.55	658.05	619.71	38.34	17.165	
8,900.00	8,887.16	8,928.68	8,887.16	19.29	21.11	-19.13	380.60	-235.55	658.05	619.27	38.78	16.970	
9,000.00	8,987.16	9,028.68	8,987.16	19.51	21.31	-19.13	380.60	-235.55	658.05	618.83	39.22	16.780	
9,100.00	9,087.16	9,128.68	9,087.16	19.72	21.52	-19.13	380.60	-235.55	658.05	618.40	39.66	16.594	
9,200.00	9,187.16	9,228.68	9,187.16	19.94	21.73	-19.13	380.60	-235.55	658.05	617.96	40.10	16.412	
9,300.00	9,287.16	9,328.68	9,287.16	20.15	21.93	-19.13	380.60	-235.55	658.05	617.51	40.54	16.234	
9,400.00	9,387.16	9,428.68	9,387.16	20.37	22.14	-19.13	380.60	-235.55	658.05	617.07	40.98	16.059	
9,500.00	9,487.16	9,528.68	9,487.16	20.58	22.35	-19.13	380.60	-235.55	658.05	616.63	41.42	15.888	
9,600.00	9,587.16	9,628.68	9,587.16	20.80	22.56	-19.13	380.60	-235.55	658.05	616.19	41.86	15.721	
9,700.00	9,687.16	9,659.53	9,618.00	21.01	22.62	-19.13	380.60	-235.55	661.68	619.53	42.15	15.699	

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25I2AS - OH - PLAN #1

Offset Site Error: 0.00 ft

Survey Program: 0-MWD SDI

Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,800.00	9,787.16	9,659.53	9,618.00	21.23	22.62	-19.13	380.60	-235.55	679.45	637.08	42.37	16.037	
9,900.00	9,887.16	9,659.53	9,618.00	21.45	22.62	-19.13	380.60	-235.55	710.97	668.38	42.59	16.695	
10,000.00	9,987.16	9,659.53	9,618.00	21.66	22.62	-19.13	380.60	-235.55	754.53	711.72	42.81	17.626	
10,100.00	10,087.16	9,659.53	9,618.00	21.88	22.62	-19.13	380.60	-235.55	808.17	765.14	43.03	18.783	
10,200.00	10,187.16	9,659.53	9,618.00	22.10	22.62	-19.13	380.60	-235.55	870.04	826.79	43.25	20.117	
10,300.00	10,287.16	9,659.53	9,618.00	22.31	22.62	-19.13	380.60	-235.55	938.51	895.04	43.47	21.590	
10,400.00	10,387.16	9,659.53	9,618.00	22.53	22.62	-19.13	380.60	-235.55	1,012.24	968.55	43.69	23.169	
10,500.00	10,487.16	9,659.53	9,618.00	22.75	22.62	-19.13	380.60	-235.55	1,090.17	1,046.26	43.91	24.827	
10,600.00	10,587.16	9,659.53	9,618.00	22.97	22.62	-19.13	380.60	-235.55	1,171.45	1,127.32	44.13	26.545	
10,655.84	10,643.00	9,659.53	9,618.00	23.09	22.62	-19.13	380.60	-235.55	1,218.05	1,173.80	44.25	27.524	

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25I4AS - OH - PLAN #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD SDI — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	171.10	-19.67	3.08	19.91				
100.00	100.00	100.00	100.00	0.10	0.10	171.10	-19.67	3.08	19.91	19.71	0.19	102.986	
200.00	200.00	200.00	200.00	0.32	0.32	171.10	-19.67	3.08	19.91	19.26	0.64	30.968	
300.00	300.00	300.00	300.00	0.55	0.55	171.10	-19.67	3.08	19.91	18.81	1.09	18.224	CC, ES
400.00	400.00	399.68	399.66	0.77	0.76	166.71	-20.13	4.75	20.68	19.16	1.53	13.547	
500.00	500.00	499.11	498.95	1.00	0.97	155.60	-21.49	9.75	23.63	21.67	1.96	12.052	SF
600.00	599.98	598.08	597.54	1.19	1.21	-44.14	-23.76	18.02	28.65	26.28	2.37	12.068	
700.00	699.84	696.33	695.07	1.38	1.48	-60.75	-26.89	29.48	36.38	33.61	2.78	13.108	
800.00	799.45	793.59	791.15	1.59	1.79	-75.20	-30.87	43.99	48.49	45.28	3.21	15.118	
820.88	820.21	813.75	811.00	1.64	1.86	-77.76	-31.80	47.39	51.64	48.33	3.30	15.629	
900.00	898.83	889.69	885.53	1.83	2.14	-85.42	-35.64	61.41	65.60	61.91	3.69	17.773	
1,000.00	998.21	984.58	978.09	2.10	2.54	-90.94	-41.16	81.60	87.14	82.92	4.22	20.664	
1,100.00	1,097.58	1,078.73	1,069.19	2.37	2.99	-93.83	-47.43	104.49	112.19	107.42	4.77	23.512	
1,200.00	1,196.95	1,175.15	1,162.22	2.65	3.49	-95.59	-54.12	128.92	138.45	133.09	5.35	25.860	
1,300.00	1,296.33	1,271.57	1,255.26	2.94	3.99	-96.78	-60.81	153.36	164.78	158.83	5.95	27.695	
1,400.00	1,395.70	1,368.00	1,348.29	3.23	4.50	-97.65	-67.50	177.79	191.16	184.60	6.56	29.153	
1,500.00	1,495.07	1,464.42	1,441.33	3.53	5.02	-98.31	-74.19	202.23	217.58	210.40	7.17	30.332	
1,600.00	1,594.45	1,560.84	1,534.36	3.82	5.54	-98.82	-80.88	226.66	244.01	236.21	7.80	31.302	
1,700.00	1,693.82	1,657.26	1,627.40	4.12	6.06	-99.23	-87.57	251.10	270.46	262.04	8.42	32.112	
1,800.00	1,793.19	1,753.68	1,720.43	4.43	6.59	-99.57	-94.26	275.53	296.92	287.87	9.05	32.796	
1,900.00	1,892.57	1,850.11	1,813.47	4.73	7.12	-99.86	-100.94	299.96	323.39	313.70	9.69	33.380	
2,000.00	1,991.94	1,946.53	1,906.50	5.03	7.65	-100.10	-107.63	324.40	349.86	339.54	10.32	33.885	
2,100.00	2,091.31	2,042.95	1,999.54	5.34	8.18	-100.31	-114.32	348.83	376.34	365.38	10.96	34.325	
2,200.00	2,190.69	2,139.37	2,092.57	5.64	8.71	-100.49	-121.01	373.27	402.82	391.22	11.60	34.712	
2,300.00	2,290.06	2,235.80	2,185.61	5.95	9.24	-100.65	-127.70	397.70	429.31	417.06	12.25	35.054	
2,400.00	2,389.43	2,332.22	2,278.64	6.26	9.77	-100.78	-134.39	422.13	455.80	442.91	12.89	35.358	
2,500.00	2,488.81	2,428.64	2,371.67	6.56	10.30	-100.91	-141.08	446.57	482.29	468.76	13.54	35.631	
2,600.00	2,588.18	2,525.06	2,464.71	6.87	10.84	-101.02	-147.77	471.00	508.78	494.60	14.18	35.877	
2,641.12	2,629.04	2,564.71	2,502.97	7.00	11.06	-101.06	-150.52	481.05	519.68	505.23	14.45	35.971	
2,700.00	2,687.61	2,627.59	2,563.70	7.15	11.35	-101.34	-154.82	496.75	534.99	520.17	14.82	36.102	
2,800.00	2,787.30	2,742.59	2,675.50	7.36	11.80	-101.59	-161.92	522.69	558.18	542.82	15.36	36.345	
2,900.00	2,887.18	2,859.39	2,789.96	7.54	12.21	-101.58	-168.06	545.13	577.59	561.75	15.84	36.459	
3,007.84	2,995.00	2,987.03	2,915.89	7.74	12.60	83.41	-173.54	565.14	594.21	577.89	16.31	36.422	
3,100.00	3,087.16	3,097.23	3,025.20	7.89	12.89	83.91	-177.23	578.60	605.07	588.41	16.66	36.318	
3,200.00	3,187.16	3,217.73	3,145.19	8.04	13.14	84.28	-180.14	589.24	613.61	596.60	17.01	36.066	
3,300.00	3,287.16	3,338.89	3,266.16	8.20	13.35	84.51	-181.89	595.64	618.73	601.37	17.36	35.637	
3,400.00	3,387.16	3,459.91	3,387.16	8.36	13.50	84.58	-182.46	597.72	620.39	602.68	17.71	35.029	
3,500.00	3,487.16	3,559.91	3,487.16	8.53	13.61	84.58	-182.46	597.72	620.39	602.36	18.03	34.402	
3,600.00	3,587.16	3,659.91	3,587.16	8.69	13.73	84.58	-182.46	597.72	620.39	602.03	18.36	33.788	
3,700.00	3,687.16	3,759.91	3,687.16	8.86	13.84	84.58	-182.46	597.72	620.39	601.70	18.69	33.186	
3,800.00	3,787.16	3,859.91	3,787.16	9.03	13.97	84.58	-182.46	597.72	620.39	601.36	19.03	32.597	
3,900.00	3,887.16	3,959.91	3,887.16	9.21	14.09	84.58	-182.46	597.72	620.39	601.01	19.37	32.021	
4,000.00	3,987.16	4,059.91	3,987.16	9.38	14.22	84.58	-182.46	597.72	620.39	600.67	19.72	31.458	
4,100.00	4,087.16	4,159.91	4,087.16	9.56	14.34	84.58	-182.46	597.72	620.39	600.32	20.07	30.908	
4,200.00	4,187.16	4,259.91	4,187.16	9.74	14.47	84.58	-182.46	597.72	620.39	599.96	20.43	30.371	
4,300.00	4,287.16	4,359.91	4,287.16	9.92	14.61	84.58	-182.46	597.72	620.39	599.60	20.79	29.847	
4,400.00	4,387.16	4,459.91	4,387.16	10.11	14.74	84.58	-182.46	597.72	620.39	599.24	21.15	29.336	
4,500.00	4,487.16	4,559.91	4,487.16	10.29	14.88	84.58	-182.46	597.72	620.39	598.88	21.51	28.838	
4,600.00	4,587.16	4,659.91	4,587.16	10.48	15.02	84.58	-182.46	597.72	620.39	598.51	21.88	28.352	
4,700.00	4,687.16	4,759.91	4,687.16	10.67	15.16	84.58	-182.46	597.72	620.39	598.14	22.25	27.878	
4,800.00	4,787.16	4,859.91	4,787.16	10.86	15.30	84.58	-182.46	597.72	620.39	597.76	22.63	27.417	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25I4AS - OH - PLAN #1

Offset Site Error: 0.00 ft

Survey Program: 0-MWD SDI

Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,887.16	4,959.91	4,887.16	11.05	15.45	84.58	-182.46	597.72	620.39	597.38	23.00	26.968	
5,000.00	4,987.16	5,059.91	4,987.16	11.24	15.60	84.58	-182.46	597.72	620.39	597.00	23.38	26.530	
5,100.00	5,087.16	5,159.91	5,087.16	11.43	15.75	84.58	-182.46	597.72	620.39	596.62	23.77	26.103	
5,200.00	5,187.16	5,259.91	5,187.16	11.63	15.90	84.58	-182.46	597.72	620.39	596.24	24.15	25.687	
5,300.00	5,287.16	5,359.91	5,287.16	11.82	16.05	84.58	-182.46	597.72	620.39	595.85	24.54	25.283	
5,400.00	5,387.16	5,459.91	5,387.16	12.02	16.20	84.58	-182.46	597.72	620.39	595.46	24.93	24.888	
5,500.00	5,487.16	5,559.91	5,487.16	12.22	16.36	84.58	-182.46	597.72	620.39	595.07	25.32	24.504	
5,600.00	5,587.16	5,659.91	5,587.16	12.42	16.52	84.58	-182.46	597.72	620.39	594.68	25.71	24.129	
5,700.00	5,687.16	5,759.91	5,687.16	12.62	16.68	84.58	-182.46	597.72	620.39	594.28	26.11	23.765	
5,800.00	5,787.16	5,859.91	5,787.16	12.82	16.84	84.58	-182.46	597.72	620.39	593.89	26.50	23.409	
5,900.00	5,887.16	5,959.91	5,887.16	13.02	17.00	84.58	-182.46	597.72	620.39	593.49	26.90	23.063	
6,000.00	5,987.16	6,059.91	5,987.16	13.22	17.16	84.58	-182.46	597.72	620.39	593.09	27.30	22.725	
6,100.00	6,087.16	6,159.91	6,087.16	13.42	17.33	84.58	-182.46	597.72	620.39	592.69	27.70	22.396	
6,200.00	6,187.16	6,259.91	6,187.16	13.62	17.49	84.58	-182.46	597.72	620.39	592.29	28.10	22.075	
6,300.00	6,287.16	6,359.91	6,287.16	13.83	17.66	84.58	-182.46	597.72	620.39	591.88	28.51	21.762	
6,400.00	6,387.16	6,459.91	6,387.16	14.03	17.83	84.58	-182.46	597.72	620.39	591.48	28.91	21.457	
6,500.00	6,487.16	6,559.91	6,487.16	14.24	18.00	84.58	-182.46	597.72	620.39	591.07	29.32	21.159	
6,600.00	6,587.16	6,659.91	6,587.16	14.44	18.17	84.58	-182.46	597.72	620.39	590.66	29.73	20.868	
6,700.00	6,687.16	6,759.91	6,687.16	14.65	18.34	84.58	-182.46	597.72	620.39	590.25	30.14	20.585	
6,800.00	6,787.16	6,859.91	6,787.16	14.86	18.52	84.58	-182.46	597.72	620.39	589.84	30.55	20.309	
6,900.00	6,887.16	6,959.91	6,887.16	15.06	18.69	84.58	-182.46	597.72	620.39	589.43	30.96	20.039	
7,000.00	6,987.16	7,059.91	6,987.16	15.27	18.87	84.58	-182.46	597.72	620.39	589.02	31.37	19.775	
7,100.00	7,087.16	7,159.91	7,087.16	15.48	19.04	84.58	-182.46	597.72	620.39	588.60	31.79	19.518	
7,200.00	7,187.16	7,259.91	7,187.16	15.69	19.22	84.58	-182.46	597.72	620.39	588.19	32.20	19.267	
7,300.00	7,287.16	7,359.91	7,287.16	15.90	19.40	84.58	-182.46	597.72	620.39	587.77	32.62	19.021	
7,400.00	7,387.16	7,459.91	7,387.16	16.11	19.58	84.58	-182.46	597.72	620.39	587.36	33.03	18.781	
7,500.00	7,487.16	7,559.91	7,487.16	16.32	19.76	84.58	-182.46	597.72	620.39	586.94	33.45	18.547	
7,600.00	7,587.16	7,659.91	7,587.16	16.53	19.94	84.58	-182.46	597.72	620.39	586.52	33.87	18.318	
7,700.00	7,687.16	7,759.91	7,687.16	16.74	20.12	84.58	-182.46	597.72	620.39	586.10	34.29	18.094	
7,800.00	7,787.16	7,859.91	7,787.16	16.95	20.31	84.58	-182.46	597.72	620.39	585.68	34.71	17.876	
7,900.00	7,887.16	7,959.91	7,887.16	17.16	20.49	84.58	-182.46	597.72	620.39	585.26	35.13	17.662	
8,000.00	7,987.16	8,059.91	7,987.16	17.37	20.68	84.58	-182.46	597.72	620.39	584.84	35.55	17.453	
8,100.00	8,087.16	8,159.91	8,087.16	17.58	20.86	84.58	-182.46	597.72	620.39	584.42	35.97	17.248	
8,200.00	8,187.16	8,259.91	8,187.16	17.80	21.05	84.58	-182.46	597.72	620.39	584.00	36.39	17.048	
8,300.00	8,287.16	8,359.91	8,287.16	18.01	21.23	84.58	-182.46	597.72	620.39	583.57	36.81	16.852	
8,400.00	8,387.16	8,459.91	8,387.16	18.22	21.42	84.58	-182.46	597.72	620.39	583.15	37.24	16.660	
8,500.00	8,487.16	8,559.91	8,487.16	18.44	21.61	84.58	-182.46	597.72	620.39	582.73	37.66	16.472	
8,600.00	8,587.16	8,659.91	8,587.16	18.65	21.80	84.58	-182.46	597.72	620.39	582.30	38.09	16.289	
8,700.00	8,687.16	8,759.91	8,687.16	18.86	21.99	84.58	-182.46	597.72	620.39	581.88	38.51	16.109	
8,800.00	8,787.16	8,859.91	8,787.16	19.08	22.18	84.58	-182.46	597.72	620.39	581.45	38.94	15.932	
8,900.00	8,887.16	8,959.91	8,887.16	19.29	22.37	84.58	-182.46	597.72	620.39	581.02	39.37	15.760	
9,000.00	8,987.16	9,059.91	8,987.16	19.51	22.56	84.58	-182.46	597.72	620.39	580.60	39.79	15.591	
9,100.00	9,087.16	9,159.91	9,087.16	19.72	22.76	84.58	-182.46	597.72	620.39	580.17	40.22	15.425	
9,200.00	9,187.16	9,259.91	9,187.16	19.94	22.95	84.58	-182.46	597.72	620.39	579.74	40.65	15.262	
9,300.00	9,287.16	9,359.91	9,287.16	20.15	23.14	84.58	-182.46	597.72	620.39	579.31	41.08	15.103	
9,400.00	9,387.16	9,459.91	9,387.16	20.37	23.34	84.58	-182.46	597.72	620.39	578.88	41.51	14.947	
9,500.00	9,487.16	9,559.91	9,487.16	20.58	23.53	84.58	-182.46	597.72	620.39	578.45	41.93	14.794	
9,600.00	9,587.16	9,659.91	9,587.16	20.80	23.73	84.58	-182.46	597.72	620.39	578.02	42.36	14.644	
9,700.00	9,687.16	9,666.76	9,594.00	21.01	23.74	84.58	-182.46	597.72	627.34	584.75	42.60	14.728	
9,800.00	9,787.16	9,666.76	9,594.00	21.23	23.74	84.58	-182.46	597.72	649.76	606.95	42.81	15.177	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25I4AS - OH - PLAN #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD SDI — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,900.00	9,887.16	9,666.76	9,594.00	21.45	23.74	84.58	-182.46	597.72	686.17	643.14	43.03	15.947	
10,000.00	9,987.16	9,666.76	9,594.00	21.66	23.74	84.58	-182.46	597.72	734.48	691.23	43.24	16.984	
10,100.00	10,087.16	9,666.76	9,594.00	21.88	23.74	84.58	-182.46	597.72	792.52	749.06	43.46	18.235	
10,200.00	10,187.16	9,666.76	9,594.00	22.10	23.74	84.58	-182.46	597.72	858.32	814.64	43.68	19.651	
10,300.00	10,287.16	9,666.76	9,594.00	22.31	23.74	84.58	-182.46	597.72	930.24	886.35	43.90	21.192	
10,400.00	10,387.16	9,666.76	9,594.00	22.53	23.74	84.58	-182.46	597.72	1,006.97	962.85	44.11	22.827	
10,500.00	10,487.16	9,666.76	9,594.00	22.75	23.74	84.58	-182.46	597.72	1,087.48	1,043.15	44.33	24.531	
10,600.00	10,587.16	9,666.76	9,594.00	22.97	23.74	84.58	-182.46	597.72	1,171.00	1,126.45	44.55	26.286	
10,655.84	10,643.00	9,666.76	9,594.00	23.09	23.74	84.58	-182.46	597.72	1,218.72	1,174.05	44.67	27.283	

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25I4DS - OH - PLAN #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD SDI — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	170.82	-29.52	4.77	29.91				
100.00	100.00	100.00	100.00	0.10	0.10	170.82	-29.52	4.77	29.91	29.71	0.19	154.721	
200.00	200.00	200.00	200.00	0.32	0.32	170.82	-29.52	4.77	29.91	29.26	0.64	46.525	
300.00	300.00	300.00	300.00	0.55	0.55	170.82	-29.52	4.77	29.91	28.82	1.09	27.379	CC, ES
400.00	400.00	399.10	399.08	0.77	0.75	169.06	-30.77	5.95	31.35	29.84	1.52	20.643	
500.00	500.00	497.97	497.81	1.00	0.95	164.66	-34.50	9.46	35.84	33.90	1.94	18.467	
600.00	599.98	596.47	595.94	1.19	1.18	-26.26	-40.67	15.29	42.08	39.73	2.35	17.931	
700.00	699.84	694.54	693.29	1.38	1.45	-34.00	-49.26	23.38	49.05	46.31	2.74	17.875	
800.00	799.45	792.08	789.66	1.59	1.76	-42.32	-60.19	33.70	57.49	54.32	3.17	18.155	
820.88	820.21	812.37	809.64	1.64	1.83	-44.05	-62.77	36.13	59.49	56.23	3.26	18.253	
900.00	898.83	888.97	884.83	1.83	2.12	-49.87	-73.41	46.17	68.68	65.05	3.63	18.925	
1,000.00	998.21	985.00	978.49	2.10	2.53	-55.00	-88.82	60.70	84.02	79.89	4.14	20.318	
1,100.00	1,097.58	1,079.98	1,070.38	2.37	2.99	-58.17	-106.29	77.18	103.06	98.38	4.67	22.053	
1,200.00	1,196.95	1,173.72	1,160.24	2.65	3.51	-60.02	-125.70	95.48	125.45	120.21	5.23	23.966	
1,300.00	1,296.33	1,266.05	1,247.84	2.94	4.07	-61.02	-146.90	115.47	150.99	145.18	5.81	25.976	
1,400.00	1,395.70	1,360.25	1,336.43	3.23	4.69	-61.55	-170.20	137.45	178.97	172.55	6.41	27.914	
1,500.00	1,495.07	1,456.18	1,426.58	3.53	5.34	-61.93	-194.07	159.96	207.16	200.13	7.03	29.479	
1,600.00	1,594.45	1,552.12	1,516.73	3.82	5.99	-62.22	-217.94	182.48	235.35	227.70	7.65	30.760	
1,700.00	1,693.82	1,648.06	1,606.88	4.12	6.65	-62.45	-241.81	204.99	263.55	255.27	8.28	31.822	
1,800.00	1,793.19	1,743.99	1,697.03	4.43	7.32	-62.63	-265.68	227.50	291.76	282.84	8.92	32.714	
1,900.00	1,892.57	1,839.93	1,787.18	4.73	7.99	-62.78	-289.55	250.02	319.96	310.41	9.56	33.473	
2,000.00	1,991.94	1,935.87	1,877.34	5.03	8.66	-62.90	-313.42	272.53	348.17	337.97	10.20	34.125	
2,100.00	2,091.31	2,031.80	1,967.49	5.34	9.33	-63.01	-337.30	295.04	376.38	365.53	10.85	34.691	
2,200.00	2,190.69	2,127.74	2,057.64	5.64	10.01	-63.10	-361.17	317.56	404.59	393.09	11.50	35.186	
2,300.00	2,290.06	2,223.68	2,147.79	5.95	10.68	-63.18	-385.04	340.07	432.80	420.65	12.15	35.622	
2,400.00	2,389.43	2,319.61	2,237.94	6.26	11.36	-63.25	-408.91	362.58	461.01	448.21	12.80	36.009	
2,500.00	2,488.81	2,415.55	2,328.09	6.56	12.03	-63.32	-432.78	385.09	489.23	475.77	13.46	36.355	
2,600.00	2,588.18	2,511.49	2,418.24	6.87	12.71	-63.37	-456.65	407.61	517.44	503.33	14.11	36.665	
2,641.12	2,629.04	2,550.94	2,455.31	7.00	12.99	-63.39	-466.46	416.87	529.04	514.66	14.38	36.784	
2,700.00	2,687.61	2,607.36	2,508.33	7.15	13.39	-63.64	-480.50	430.10	545.88	531.12	14.76	36.996	
2,800.00	2,787.30	2,702.83	2,598.04	7.36	14.07	-63.87	-504.26	452.51	575.51	560.20	15.32	37.575	
2,900.00	2,887.18	2,807.35	2,696.39	7.54	14.75	-63.82	-530.00	476.79	606.16	590.32	15.84	38.264	
3,007.84	2,995.00	2,937.72	2,820.53	7.74	15.39	121.24	-558.92	504.07	637.16	620.81	16.35	38.977	
3,100.00	3,087.16	3,051.57	2,930.33	7.89	15.89	121.95	-580.80	524.70	660.73	644.00	16.73	39.505	
3,200.00	3,187.16	3,177.74	3,053.30	8.04	16.38	122.57	-601.32	544.05	682.42	665.29	17.13	39.848	
3,300.00	3,287.16	3,306.24	3,179.69	8.20	16.80	123.04	-618.14	559.92	699.91	682.38	17.53	39.935	
3,400.00	3,387.16	3,436.61	3,308.85	8.36	17.14	123.37	-630.98	572.02	713.09	695.17	17.92	39.794	
3,500.00	3,487.16	3,568.34	3,440.04	8.53	17.41	123.59	-639.60	580.15	721.85	703.54	18.31	39.433	
3,600.00	3,587.16	3,700.89	3,572.45	8.69	17.60	123.69	-643.83	584.15	726.13	707.44	18.68	38.867	
3,700.00	3,687.16	3,815.60	3,687.16	8.86	17.71	123.70	-644.28	584.57	726.58	707.55	19.03	38.180	
3,800.00	3,787.16	3,915.60	3,787.16	9.03	17.80	123.70	-644.28	584.57	726.58	707.23	19.35	37.541	
3,900.00	3,887.16	4,015.60	3,887.16	9.21	17.89	123.70	-644.28	584.57	726.58	706.90	19.68	36.914	
4,000.00	3,987.16	4,115.60	3,987.16	9.38	17.98	123.70	-644.28	584.57	726.58	706.56	20.02	36.299	
4,100.00	4,087.16	4,215.60	4,087.16	9.56	18.08	123.70	-644.28	584.57	726.58	706.22	20.35	35.696	
4,200.00	4,187.16	4,315.60	4,187.16	9.74	18.18	123.70	-644.28	584.57	726.58	705.88	20.70	35.106	
4,300.00	4,287.16	4,415.60	4,287.16	9.92	18.28	123.70	-644.28	584.57	726.58	705.54	21.04	34.529	
4,400.00	4,387.16	4,515.60	4,387.16	10.11	18.38	123.70	-644.28	584.57	726.58	705.19	21.39	33.964	
4,500.00	4,487.16	4,615.60	4,487.16	10.29	18.48	123.70	-644.28	584.57	726.58	704.83	21.75	33.411	
4,600.00	4,587.16	4,715.60	4,587.16	10.48	18.59	123.70	-644.28	584.57	726.58	704.48	22.10	32.872	
4,700.00	4,687.16	4,815.60	4,687.16	10.67	18.70	123.70	-644.28	584.57	726.58	704.12	22.46	32.344	
4,800.00	4,787.16	4,915.60	4,787.16	10.86	18.81	123.70	-644.28	584.57	726.58	703.75	22.83	31.829	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25I4DS - OH - PLAN #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD SDI — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,887.16	5,015.60	4,887.16	11.05	18.92	123.70	-644.28	584.57	726.58	703.39	23.19	31.326	
5,000.00	4,987.16	5,115.60	4,987.16	11.24	19.04	123.70	-644.28	584.57	726.58	703.02	23.56	30.835	
5,100.00	5,087.16	5,215.60	5,087.16	11.43	19.16	123.70	-644.28	584.57	726.58	702.64	23.94	30.356	
5,200.00	5,187.16	5,315.60	5,187.16	11.63	19.27	123.70	-644.28	584.57	726.58	702.27	24.31	29.888	
5,300.00	5,287.16	5,415.60	5,287.16	11.82	19.40	123.70	-644.28	584.57	726.58	701.89	24.69	29.431	
5,400.00	5,387.16	5,515.60	5,387.16	12.02	19.52	123.70	-644.28	584.57	726.58	701.51	25.07	28.986	
5,500.00	5,487.16	5,615.60	5,487.16	12.22	19.64	123.70	-644.28	584.57	726.58	701.13	25.45	28.551	
5,600.00	5,587.16	5,715.60	5,587.16	12.42	19.77	123.70	-644.28	584.57	726.58	700.75	25.83	28.126	
5,700.00	5,687.16	5,815.60	5,687.16	12.62	19.90	123.70	-644.28	584.57	726.58	700.36	26.22	27.712	
5,800.00	5,787.16	5,915.60	5,787.16	12.82	20.03	123.70	-644.28	584.57	726.58	699.97	26.61	27.308	
5,900.00	5,887.16	6,015.60	5,887.16	13.02	20.16	123.70	-644.28	584.57	726.58	699.58	27.00	26.914	
6,000.00	5,987.16	6,115.60	5,987.16	13.22	20.29	123.70	-644.28	584.57	726.58	699.19	27.39	26.529	
6,100.00	6,087.16	6,215.60	6,087.16	13.42	20.42	123.70	-644.28	584.57	726.58	698.80	27.78	26.153	
6,200.00	6,187.16	6,315.60	6,187.16	13.62	20.56	123.70	-644.28	584.57	726.58	698.40	28.18	25.786	
6,300.00	6,287.16	6,415.60	6,287.16	13.83	20.70	123.70	-644.28	584.57	726.58	698.01	28.57	25.428	
6,400.00	6,387.16	6,515.60	6,387.16	14.03	20.84	123.70	-644.28	584.57	726.58	697.61	28.97	25.079	
6,500.00	6,487.16	6,615.60	6,487.16	14.24	20.98	123.70	-644.28	584.57	726.58	697.21	29.37	24.737	
6,600.00	6,587.16	6,715.60	6,587.16	14.44	21.12	123.70	-644.28	584.57	726.58	696.81	29.77	24.404	
6,700.00	6,687.16	6,815.60	6,687.16	14.65	21.26	123.70	-644.28	584.57	726.58	696.40	30.18	24.078	
6,800.00	6,787.16	6,915.60	6,787.16	14.86	21.41	123.70	-644.28	584.57	726.58	696.00	30.58	23.760	
6,900.00	6,887.16	7,015.60	6,887.16	15.06	21.55	123.70	-644.28	584.57	726.58	695.59	30.98	23.450	
7,000.00	6,987.16	7,115.60	6,987.16	15.27	21.70	123.70	-644.28	584.57	726.58	695.19	31.39	23.146	
7,100.00	7,087.16	7,215.60	7,087.16	15.48	21.85	123.70	-644.28	584.57	726.58	694.78	31.80	22.850	
7,200.00	7,187.16	7,315.60	7,187.16	15.69	22.00	123.70	-644.28	584.57	726.58	694.37	32.21	22.560	
7,300.00	7,287.16	7,415.60	7,287.16	15.90	22.15	123.70	-644.28	584.57	726.58	693.96	32.62	22.276	
7,400.00	7,387.16	7,515.60	7,387.16	16.11	22.31	123.70	-644.28	584.57	726.58	693.55	33.03	21.999	
7,500.00	7,487.16	7,615.60	7,487.16	16.32	22.46	123.70	-644.28	584.57	726.58	693.14	33.44	21.729	
7,600.00	7,587.16	7,715.60	7,587.16	16.53	22.62	123.70	-644.28	584.57	726.58	692.73	33.85	21.464	
7,700.00	7,687.16	7,815.60	7,687.16	16.74	22.77	123.70	-644.28	584.57	726.58	692.31	34.27	21.205	
7,800.00	7,787.16	7,915.60	7,787.16	16.95	22.93	123.70	-644.28	584.57	726.58	691.90	34.68	20.951	
7,900.00	7,887.16	8,015.60	7,887.16	17.16	23.09	123.70	-644.28	584.57	726.58	691.48	35.09	20.703	
8,000.00	7,987.16	8,115.60	7,987.16	17.37	23.25	123.70	-644.28	584.57	726.58	691.07	35.51	20.461	
8,100.00	8,087.16	8,215.60	8,087.16	17.58	23.41	123.70	-644.28	584.57	726.58	690.65	35.93	20.223	
8,200.00	8,187.16	8,315.60	8,187.16	17.80	23.57	123.70	-644.28	584.57	726.58	690.23	36.35	19.991	
8,300.00	8,287.16	8,415.60	8,287.16	18.01	23.73	123.70	-644.28	584.57	726.58	689.82	36.76	19.763	
8,400.00	8,387.16	8,515.60	8,387.16	18.22	23.90	123.70	-644.28	584.57	726.58	689.40	37.18	19.541	
8,500.00	8,487.16	8,615.60	8,487.16	18.44	24.06	123.70	-644.28	584.57	726.58	688.98	37.60	19.322	
8,600.00	8,587.16	8,715.60	8,587.16	18.65	24.23	123.70	-644.28	584.57	726.58	688.56	38.02	19.109	
8,700.00	8,687.16	8,815.60	8,687.16	18.86	24.39	123.70	-644.28	584.57	726.58	688.13	38.44	18.899	
8,800.00	8,787.16	8,915.60	8,787.16	19.08	24.56	123.70	-644.28	584.57	726.58	687.71	38.87	18.694	
8,900.00	8,887.16	9,015.60	8,887.16	19.29	24.73	123.70	-644.28	584.57	726.58	687.29	39.29	18.493	
9,000.00	8,987.16	9,115.60	8,987.16	19.51	24.90	123.70	-644.28	584.57	726.58	686.87	39.71	18.296	
9,100.00	9,087.16	9,215.60	9,087.16	19.72	25.07	123.70	-644.28	584.57	726.58	686.44	40.14	18.103	
9,200.00	9,187.16	9,315.60	9,187.16	19.94	25.24	123.70	-644.28	584.57	726.58	686.02	40.56	17.914	
9,300.00	9,287.16	9,415.60	9,287.16	20.15	25.41	123.70	-644.28	584.57	726.58	685.59	40.98	17.728	
9,400.00	9,387.16	9,515.60	9,387.16	20.37	25.59	123.70	-644.28	584.57	726.58	685.17	41.41	17.546	
9,500.00	9,487.16	9,615.60	9,487.16	20.58	25.76	123.70	-644.28	584.57	726.58	684.74	41.84	17.367	
9,600.00	9,587.16	9,715.60	9,587.16	20.80	25.93	123.70	-644.28	584.57	726.58	684.32	42.26	17.192	SF
9,700.00	9,687.16	9,732.44	9,604.00	21.01	25.96	123.70	-644.28	584.57	731.32	688.81	42.51	17.202	
9,800.00	9,787.16	9,732.44	9,604.00	21.23	25.96	123.70	-644.28	584.57	749.31	706.58	42.73	17.535	

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 921-25I Pad - NBU 921-25I4DS - OH - PLAN #1

Offset Site Error: 0.00 ft

Survey Program: 0-MWD SDI

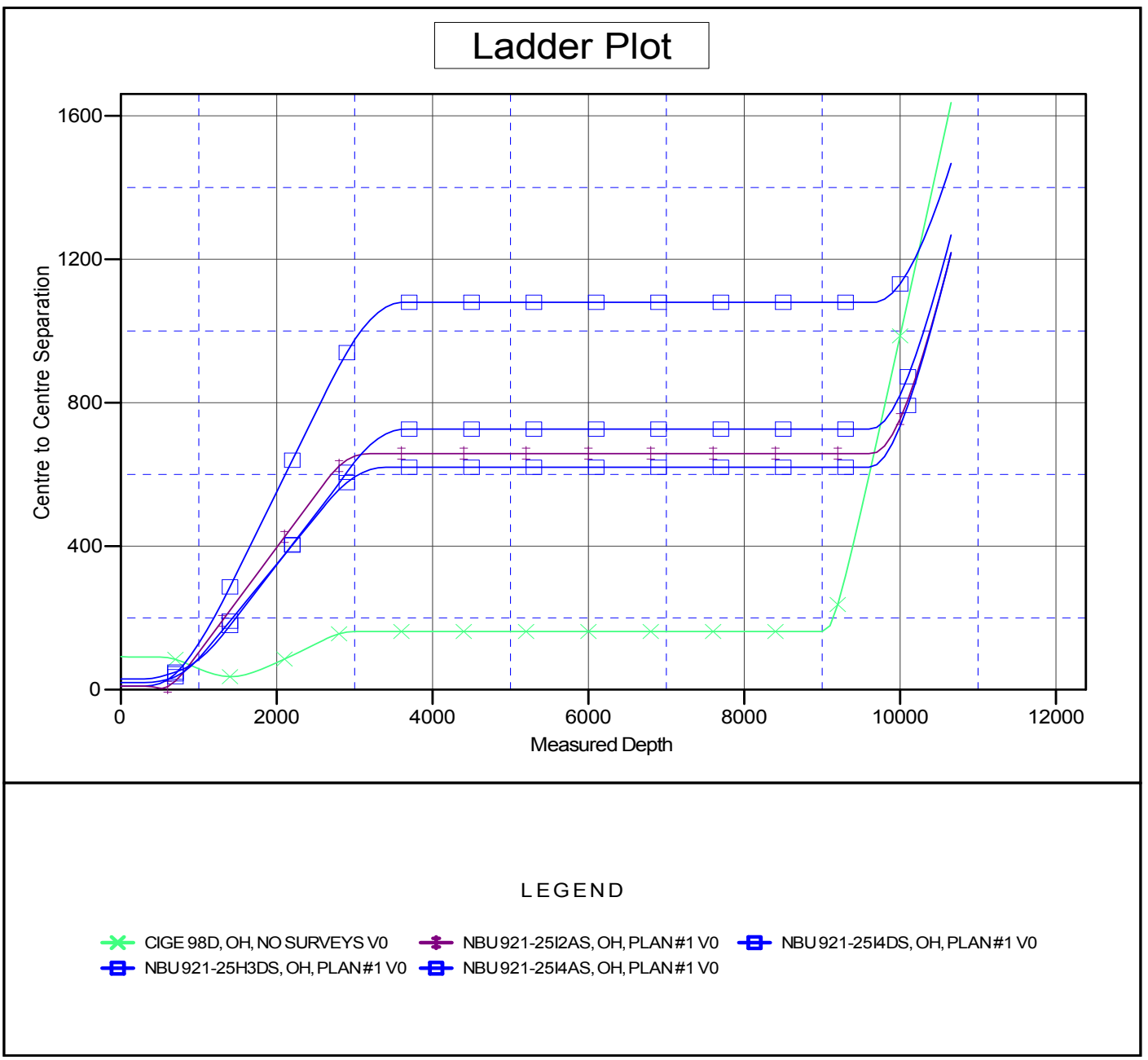
Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,900.00	9,887.16	9,732.44	9,604.00	21.45	25.96	123.70	-644.28	584.57	779.80	736.86	42.95	18.156	
10,000.00	9,987.16	9,732.44	9,604.00	21.66	25.96	123.70	-644.28	584.57	821.42	778.25	43.17	19.029	
10,100.00	10,087.16	9,732.44	9,604.00	21.88	25.96	123.70	-644.28	584.57	872.56	829.17	43.38	20.112	
10,200.00	10,187.16	9,732.44	9,604.00	22.10	25.96	123.70	-644.28	584.57	931.66	888.06	43.60	21.367	
10,300.00	10,287.16	9,732.44	9,604.00	22.31	25.96	123.70	-644.28	584.57	997.31	953.49	43.82	22.759	
10,400.00	10,387.16	9,732.44	9,604.00	22.53	25.96	123.70	-644.28	584.57	1,068.29	1,024.26	44.04	24.258	
10,500.00	10,487.16	9,732.44	9,604.00	22.75	25.96	123.70	-644.28	584.57	1,143.63	1,099.37	44.26	25.841	
10,600.00	10,587.16	9,732.44	9,604.00	22.97	25.96	123.70	-644.28	584.57	1,222.50	1,178.03	44.48	27.487	
10,655.84	10,643.00	9,732.44	9,604.00	23.09	25.96	123.70	-644.28	584.57	1,267.85	1,223.25	44.60	28.429	

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to GL 4980' & RKB 14' @ 4994.00ft (AS
Offset Depths are relative to Offset Datum
Central Meridian is 111° 0' 0.000 W

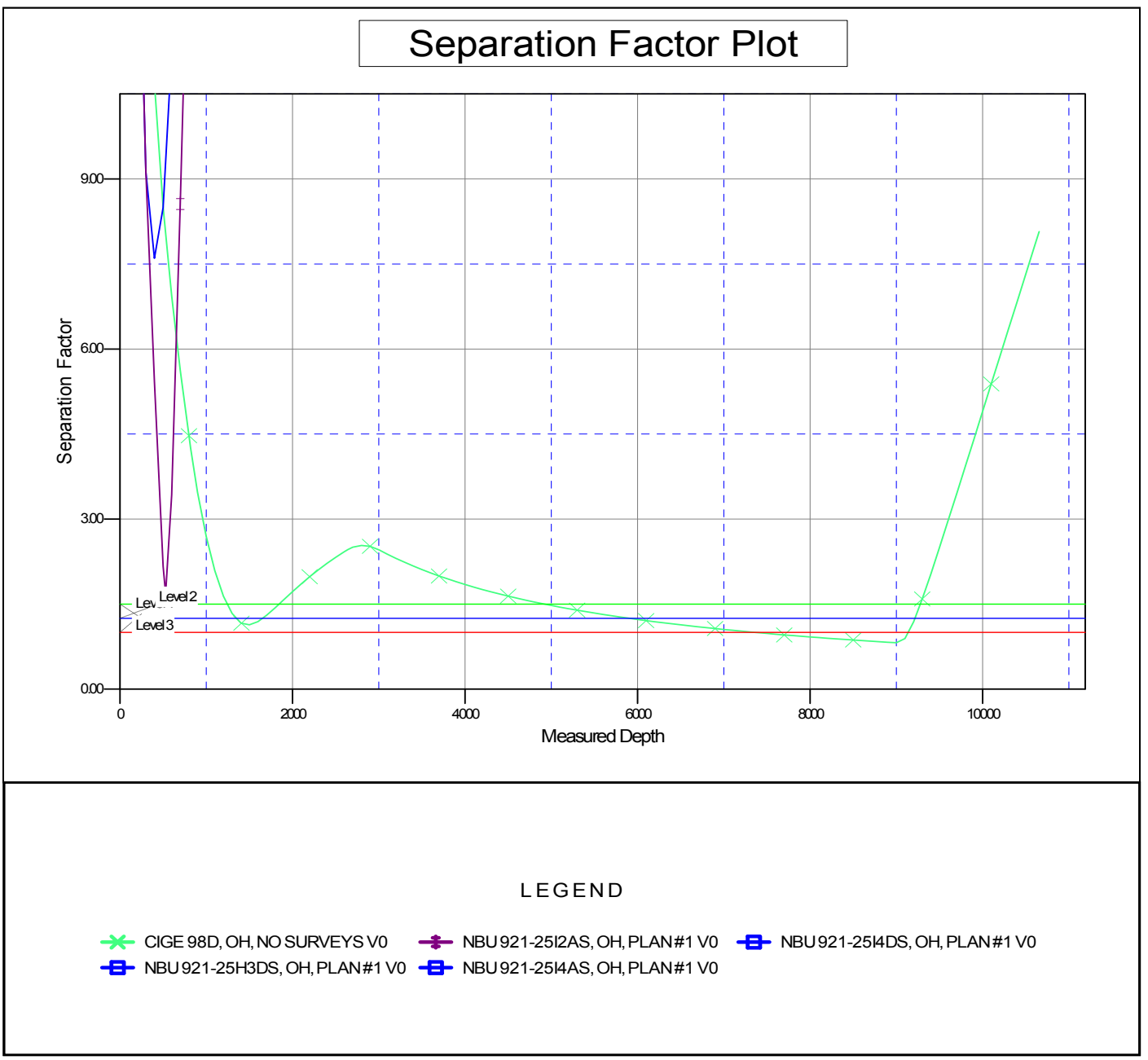
Coordinates are relative to: NBU 921-25I3AS
Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
Grid Convergence at Surface is: 0.97°



Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Reference Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 14' @ 4994.00ft (ASSUMED)
Site Error:	0.00 ft	**North Reference:**	True
Reference Well:	NBU 921-25I3AS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM5000-RobertS-Local
Reference Design:	PLAN #3	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to GL 4980' & RKB 14' @ 4994.00ft (AS
Offset Depths are relative to Offset Datum
Central Meridian is 111° 0' 0.000 W

Coordinates are relative to: NBU 921-25I3AS
Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
Grid Convergence at Surface is: 0.97°



WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 921-25I4DS	40°00'19.147" 40.005319°	109°29'35.149" 109.493097°	40°00'19.274" 40.005354°	109°29'32.678" 109.492411°	2035' FSL 684' FEL	40°00'13.071" 40.003631°	109°29'27.699" 109.491028°	40°00'13.197" 40.003666°	109°29'25.229" 109.490341°	1420' FSL 105' FEL
NBU 921-25I4AS	40°00'19.245" 40.005346°	109°29'35.170" 109.493103°	40°00'19.371" 40.005381°	109°29'32.699" 109.492417°	2045' FSL 686' FEL	40°00'17.635" 40.004899°	109°29'27.527" 109.490980°	40°00'17.761" 40.004934°	109°29'25.057" 109.490294°	1882' FSL 91' FEL
NBU 921-25I2AS	40°00'19.343" 40.005373°	109°29'35.190" 109.493108°	40°00'19.469" 40.005408°	109°29'32.719" 109.492422°	2054' FSL 687' FEL	40°00'23.203" 40.006445°	109°29'38.238" 109.493955°	40°00'23.329" 40.006480°	109°29'35.768" 109.493269°	2445' FSL 924' FEL
NBU 921-25I3AS	40°00'19.441" 40.005400°	109°29'35.211" 109.493114°	40°00'19.567" 40.005435°	109°29'32.740" 109.492428°	2064' FSL 689' FEL	40°00'17.056" 40.004738°	109°29'35.466" 109.493185°	40°00'17.183" 40.004773°	109°29'32.995" 109.492499°	1823' FSL 709' FEL
NBU 921-25H3DS	40°00'19.538" 40.005427°	109°29'35.231" 109.493120°	40°00'19.664" 40.005462°	109°29'32.761" 109.492434°	2074' FSL 690' FEL	40°00'27.613" 40.007670°	109°29'37.554" 109.493765°	40°00'27.739" 40.007705°	109°29'35.083" 109.493079°	2395' FNL 870' FEL
CIGE 98D	40°00'18.587" 40.005163°	109°29'34.835" 109.493010°	40°00'18.713" 40.005198°	109°29'32.365" 109.492324°	1978' FSL 660' FEL					

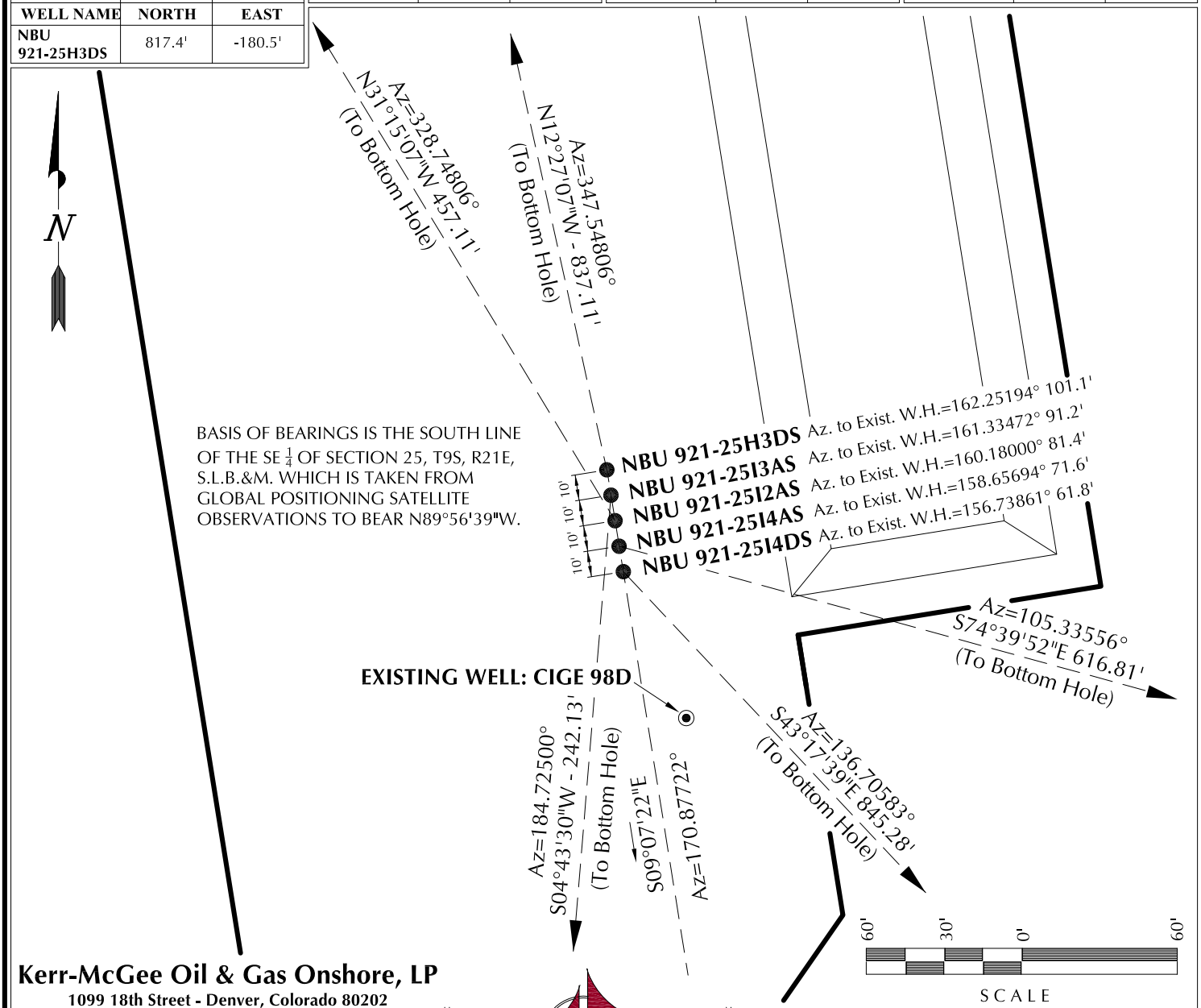
RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST
NBU 921-25I4DS	-615.2'	579.6'
NBU 921-25H3DS	817.4'	-180.5'

WELL NAME	NORTH	EAST
NBU 921-25I4AS	-163.1'	594.8'

WELL NAME	NORTH	EAST
NBU 921-25I2AS	390.8'	-237.1'

WELL NAME	NORTH	EAST
NBU 921-25I3AS	-241.3'	-19.9'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

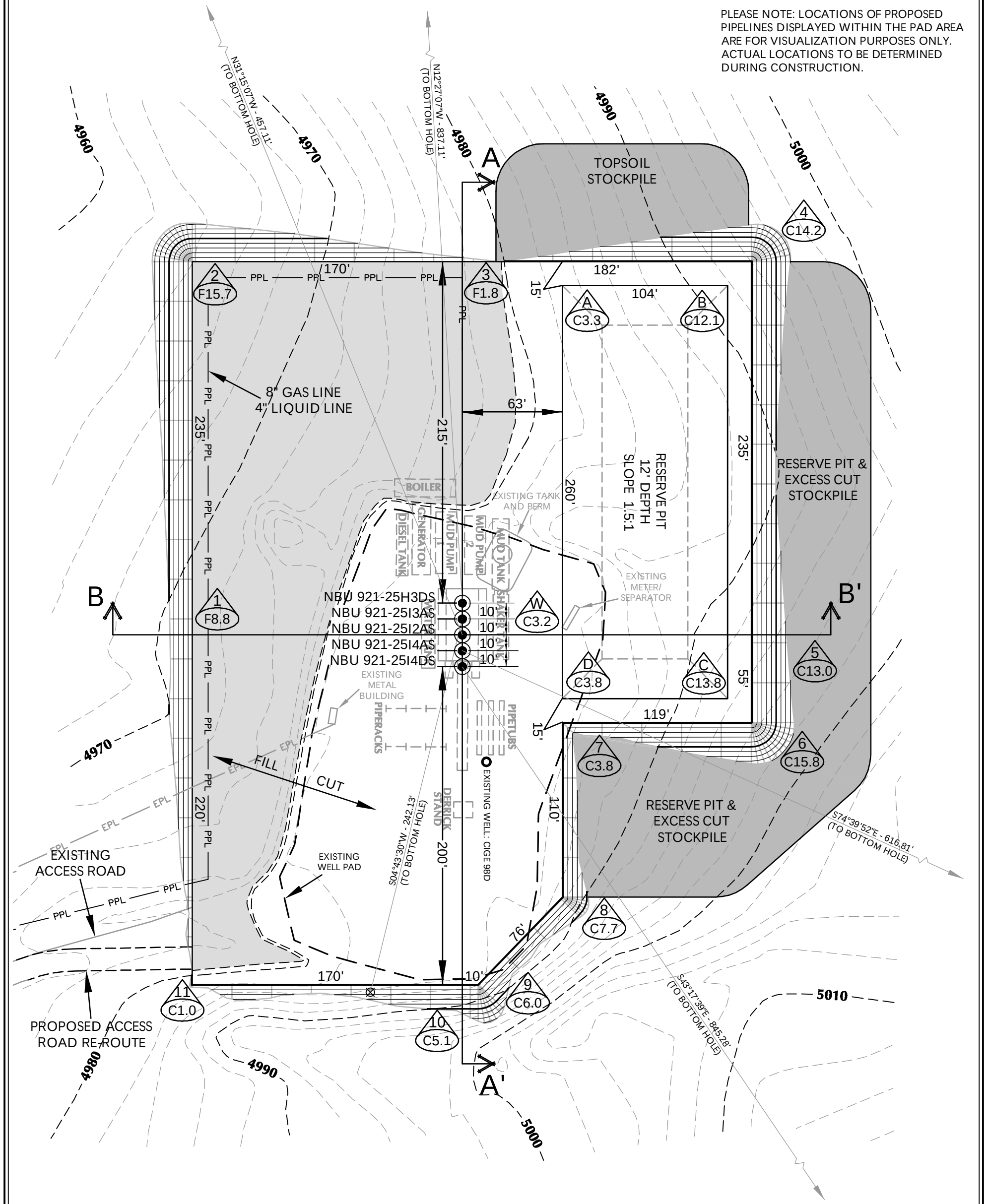
WELL PAD INTERFERENCE PLAT
WELLS - NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 04-01-10	SURVEYED BY: D.J.S.	SHEET NO: 6
DATE DRAWN: 04-05-10	DRAWN BY: E.M.S.	6 OF 17
SCALE: 1" = 60'	Date Last Revised: 09-24-10 M.W.W.	

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



WELL PAD - NBU 921-25I DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4982.9'
FINISHED GRADE ELEVATION = 4979.7'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.75 ACRES
TOTAL DAMAGE AREA = 6.28 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

WELL PAD - LOCATION LAYOUT
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 16,473 C.Y.
TOTAL FILL FOR WELL PAD = 15,678 C.Y.
TOPSOIL @ 6" DEPTH = 2,230 C.Y.
EXCESS MATERIAL = 795 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 9,300 CY
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 35,480 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

TIMBERLINE ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078
(435) 789-1365

Scale: 1"=60'	Date: 5/13/10	SHEET NO:
REVISED:	SEA 9/27/10	7 — 7 OF 17

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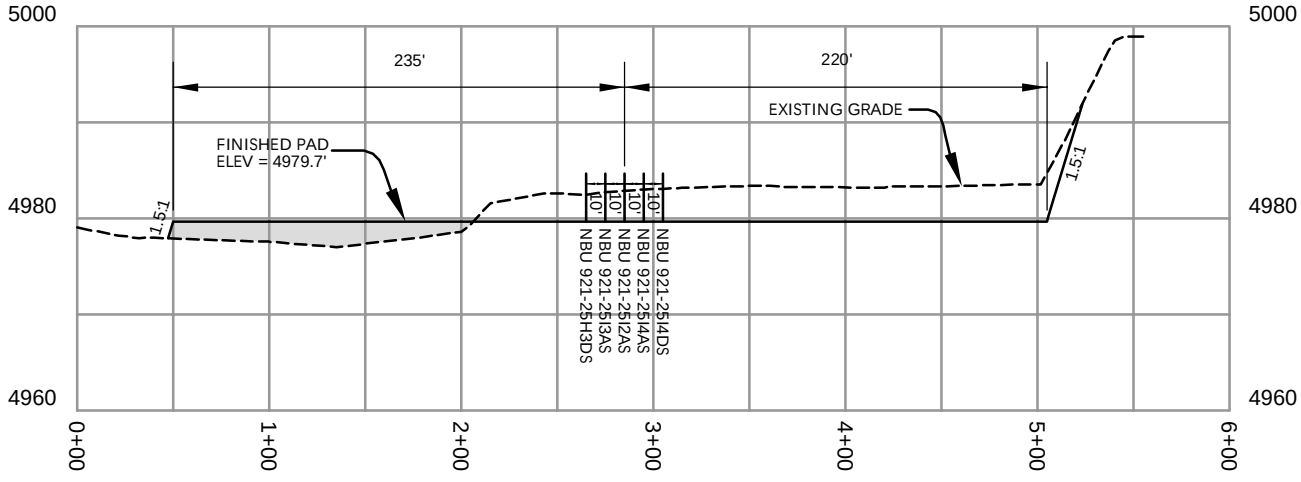
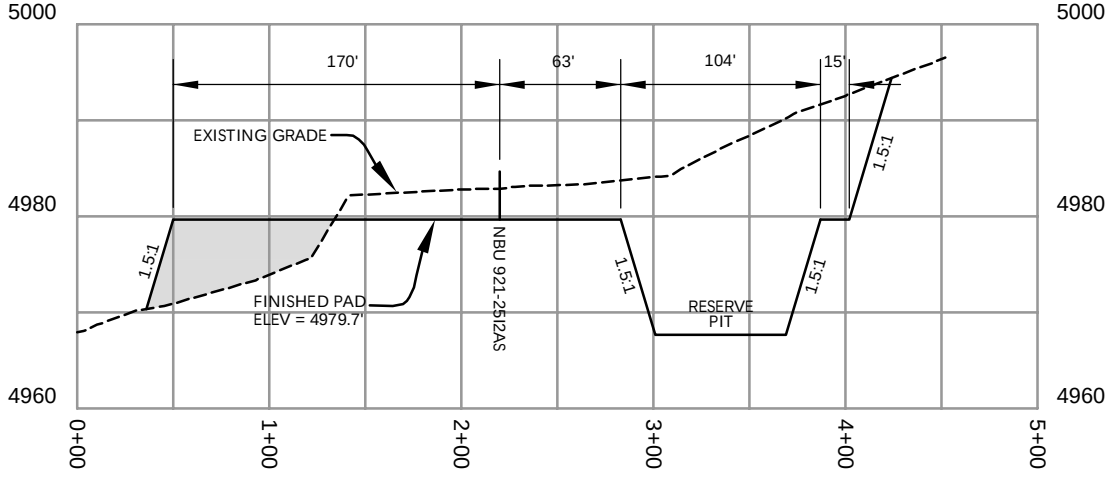
RECEIVED October 07, 2010



CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

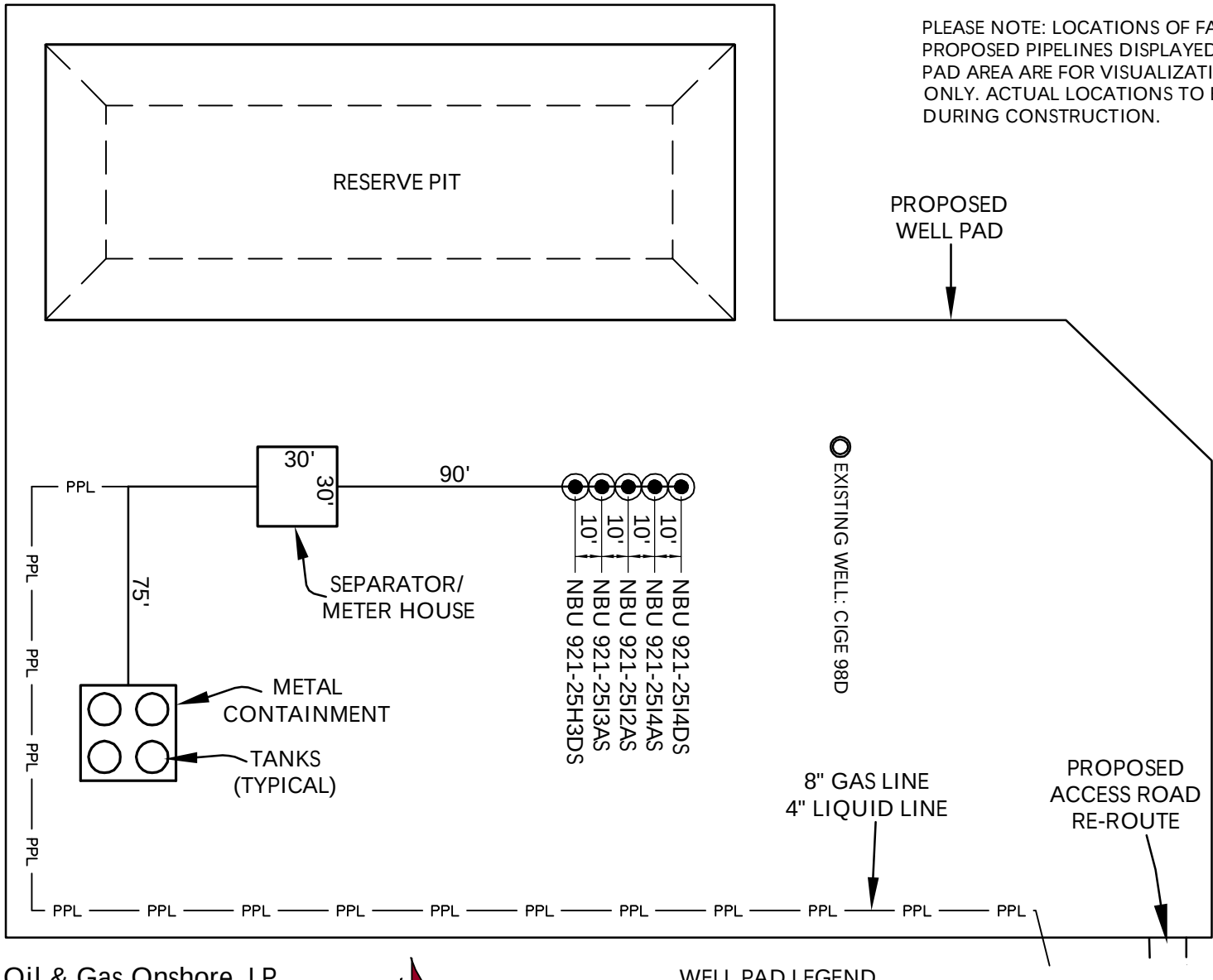
WELL PAD - CROSS SECTIONS
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=100' Date: 5/14/10 SHEET NO: 8
REVISED: SEA 9/15/10 8 OF 17



RECEIVED October 07, 2010

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

WELL PAD - FACILITIES DIAGRAM
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
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Sheridan, WY 82801
Phone 307-674-0609
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TIMBERLINE ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078
(435) 789-1365

Scale: 1"=60' | Date: 5/13/10 | SHEET NO: 9 | 9 OF 17
REVISED: SEA 9/15/10

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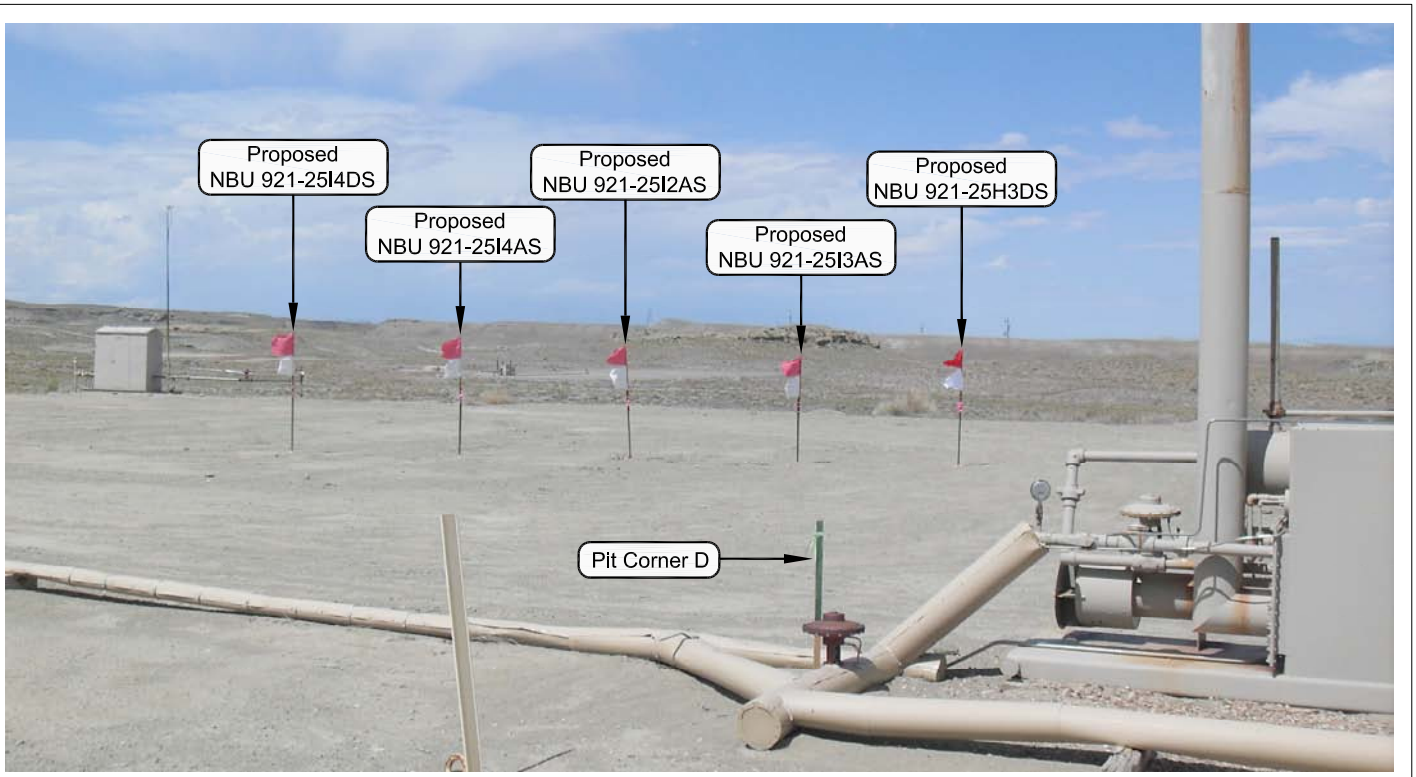

PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE **CAMERA ANGLE: NORTHWESTERLY**

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD **CAMERA ANGLE: EASTERLY**

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-25I

LOCATION PHOTOS
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

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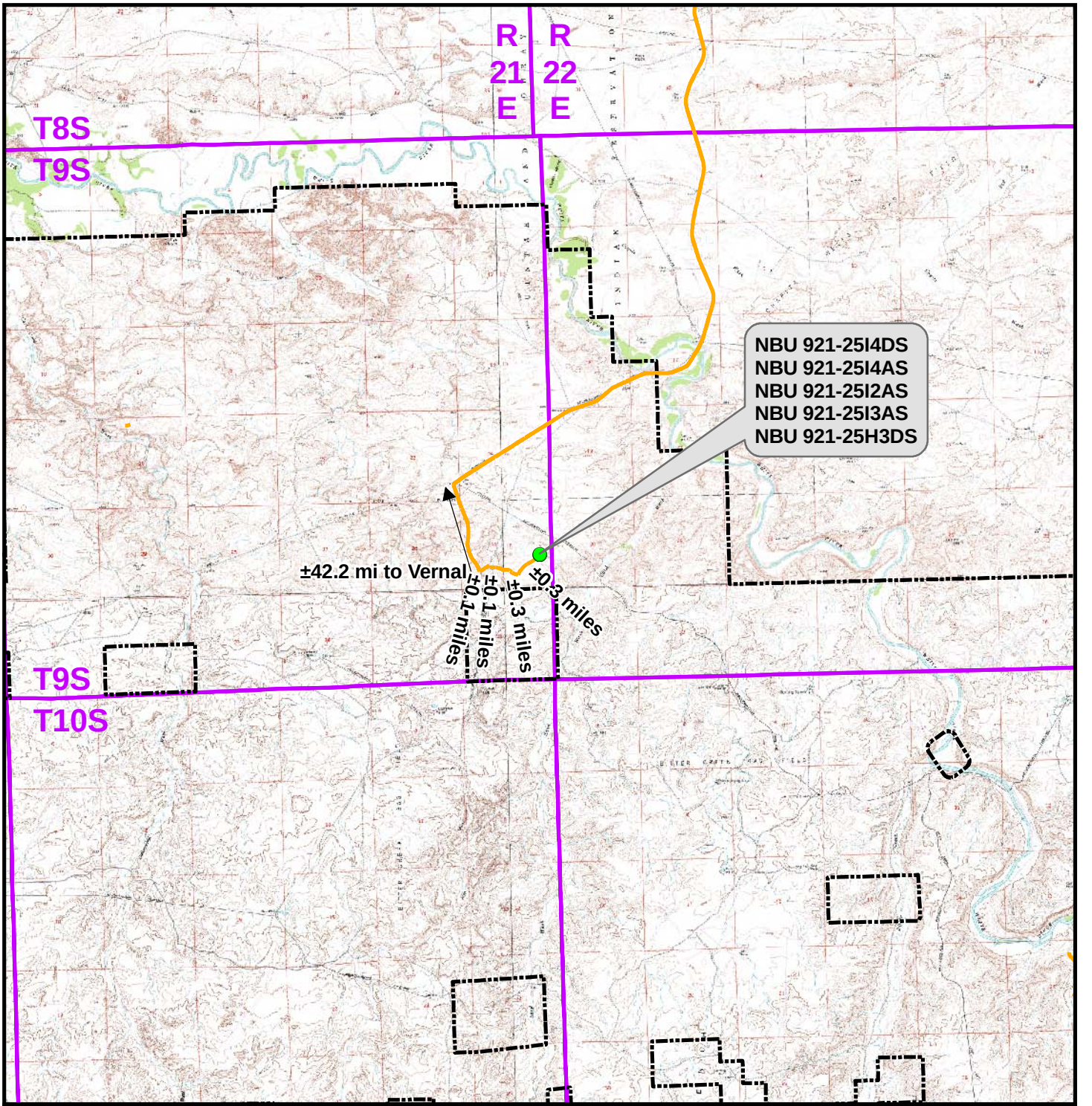
TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 04-01-10	PHOTOS TAKEN BY: D.J.S.	SHEET NO: 10
DATE DRAWN: 04-05-10	DRAWN BY: E.M.S.	10 OF 17
Date Last Revised: 09-14-10 M.W.W.		

RECEIVED October 07, 2010



Legend

Distance From Well Pad - NBU 921-25I To Unit Boundary: ±2,035ft

- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

TOPO A
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

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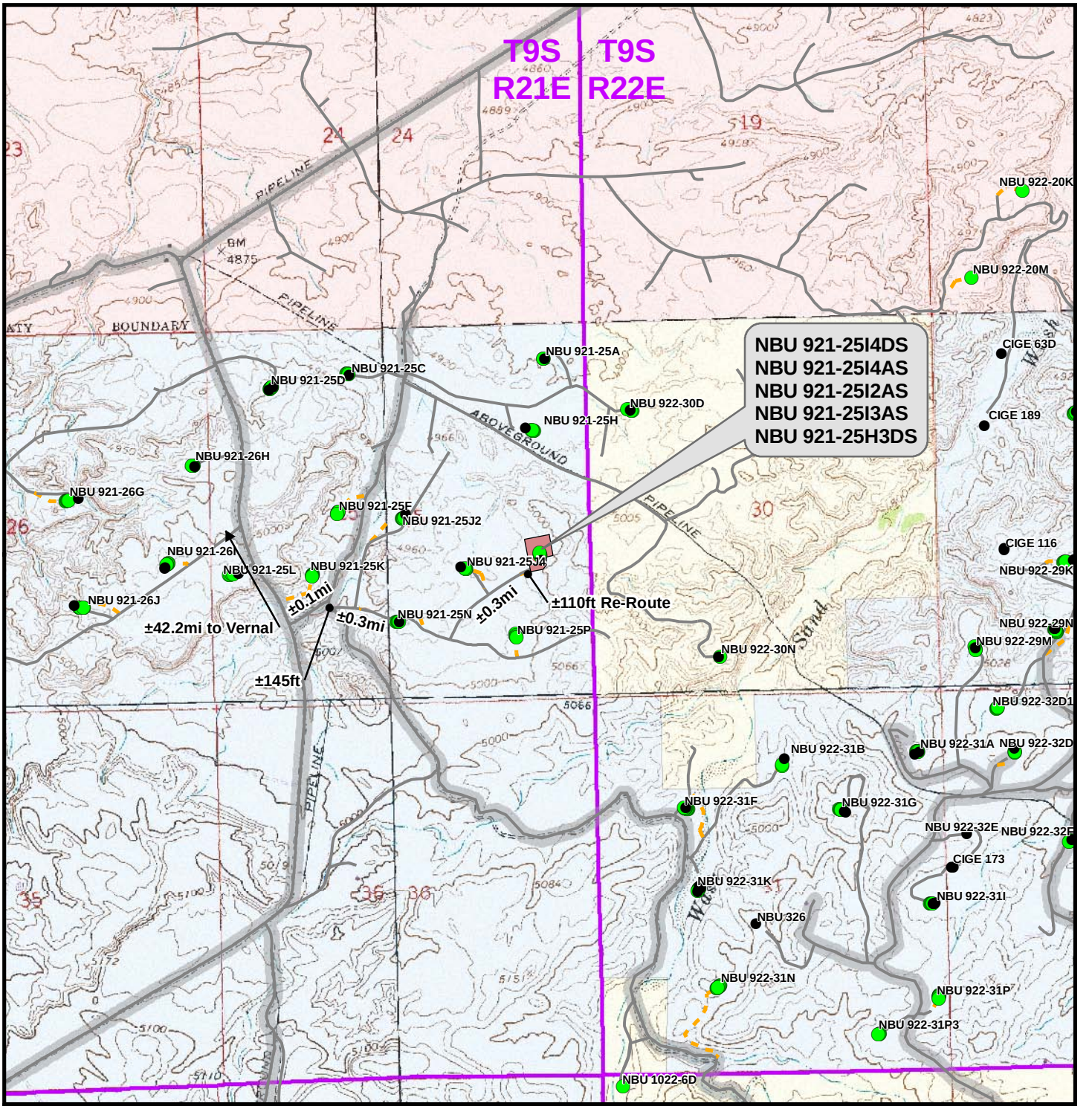
Scale: 1:100,000	NAD83 USP Central	Sheet No: 11	11 of 17
Drawn: CPS	Date: 14 May 2010		
Revised: KGS	Date: 15 Sept 2010		



Legend

Total Proposed Road Re-Route Length: ±110ft

Well - Proposed	Well Pad	Road - Proposed	County Road	Bureau of Land Management	State
Well - Existing		Road - Existing		Indian Reservation	Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

TOPO B
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 12 of 17	
Drawn: CPS	Date: 14 May 2010		
Revised: CPS	Date: 15 Sept 2010		

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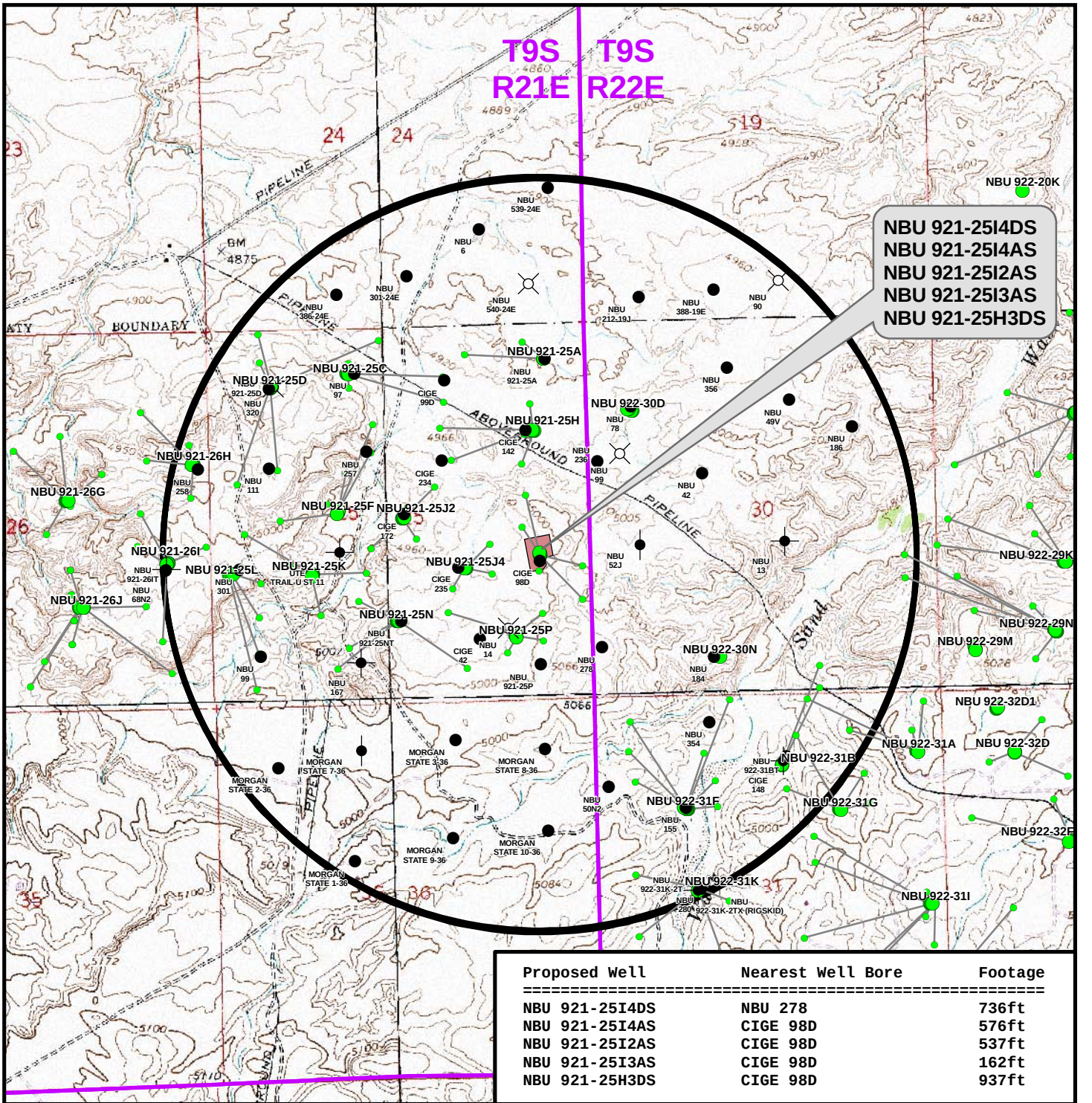

Proposed Well	Nearest Well Bore	Footage
NBU 921-25I4DS	NBU 278	736ft
NBU 921-25I4AS	CIGE 98D	576ft
NBU 921-25I2AS	CIGE 98D	537ft
NBU 921-25I3AS	CIGE 98D	162ft
NBU 921-25H3DS	CIGE 98D	937ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Well Path
- Well Pad
- Well - 1 Mile Radius

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

- Producing
- Active
- Spudded (Drilling commenced: Not yet completed)
- Approved permit (APD); not yet spudded
- New Permit (Not yet approved or drilled)
- Inactive
- Drilling Operations Suspended
- Temporarily-Abandoned
- Shut-In
- Plugged and Abandoned
- Location Abandoned
- Dry hole marker, buried
- Returned APD (Unapproved)

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

TOPO C
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 13 of 17	
Drawn: CPS	Date: 14 May 2010		
Revised: CPS	Date: 27 Sept 2010		

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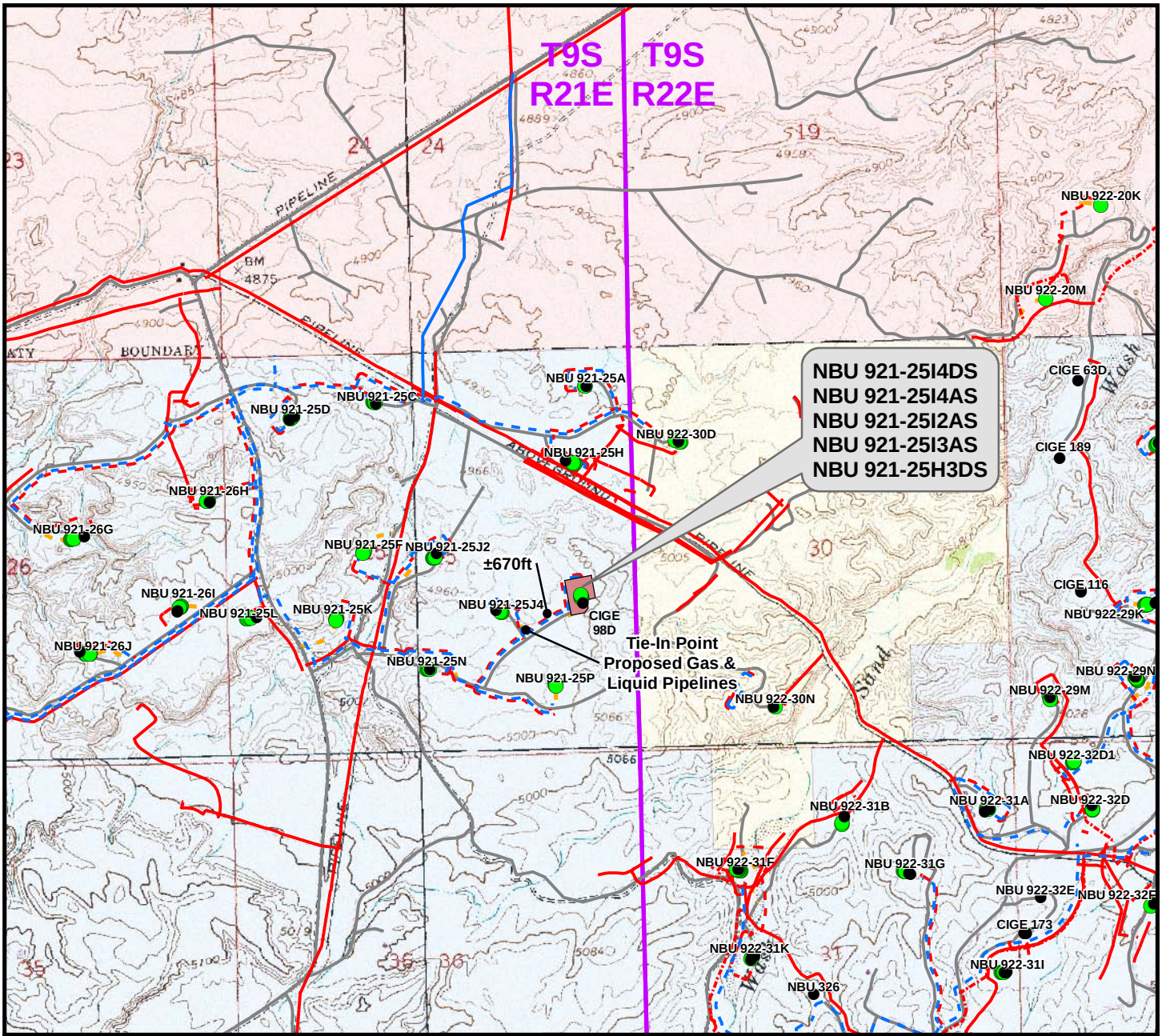

Proposed Liquid Pipeline	Length
Proposed 4" (Meter House to Edge of Pad)	±670ft
Proposed 4" (Edge of Pad to 25J Intersection)	±670ft
TOTAL PROPOSED LIQUID PIPELINE =	± 1,340ft

Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±670ft
Proposed 8" (Edge of Pad to 25J Intersection)	±670ft
TOTAL PROPOSED GAS PIPELINE =	±1,340ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

TOPO D
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

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Phone (307) 674-0609
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 14	14 of 17
Drawn: CPS	Date: 14 May 2010		
Revised: CPS	Date: 15 Sept 2010		

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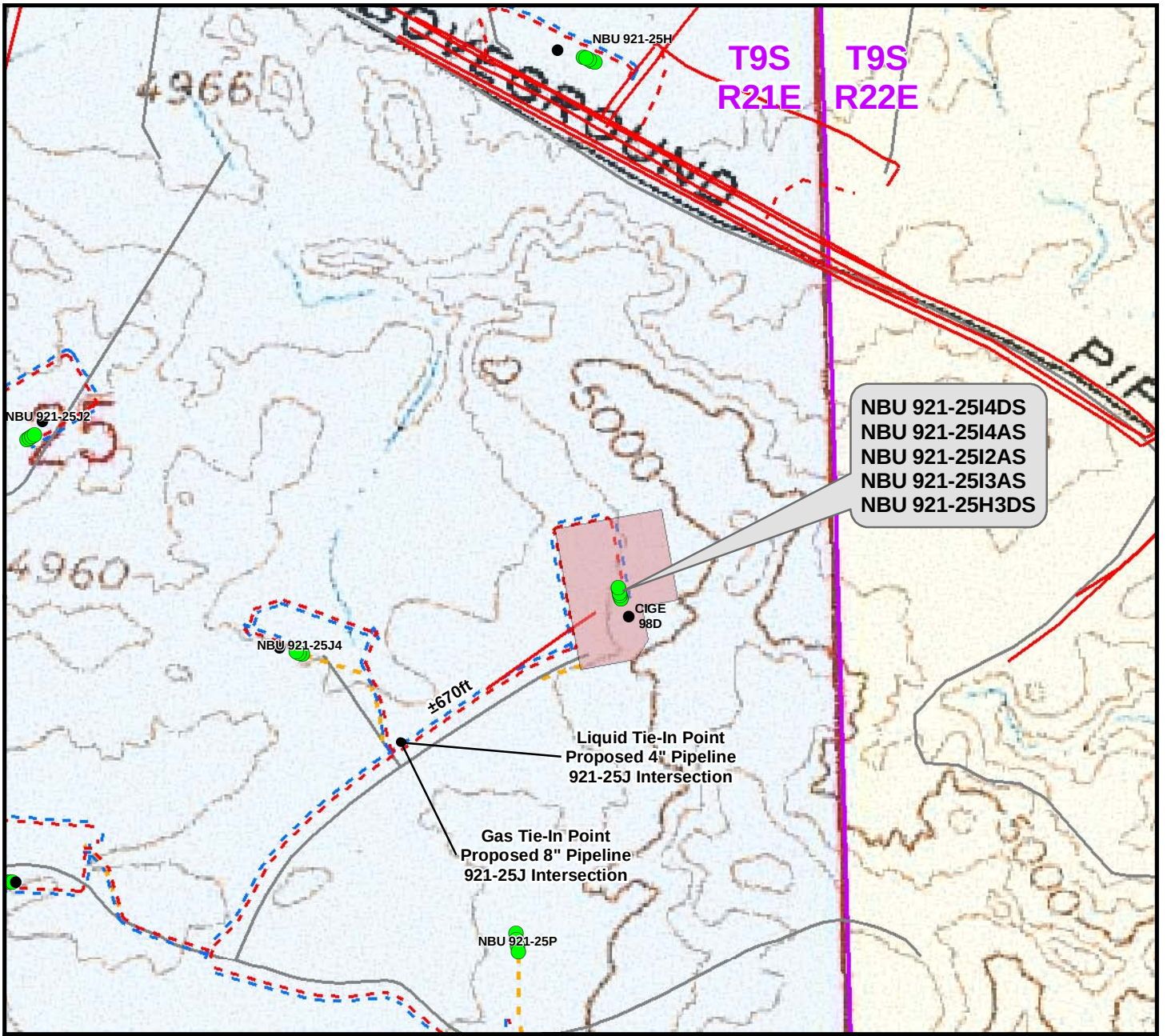

Proposed Liquid Pipeline	Length
Proposed 4" (Meter House to Edge of Pad)	±670ft
Proposed 4" (Edge of Pad to 25J Intersection)	±670ft
TOTAL PROPOSED LIQUID PIPELINE =	± 1,340ft

Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±670ft
Proposed 8" (Edge of Pad to 25J Intersection)	±670ft
TOTAL PROPOSED GAS PIPELINE =	±1,340ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

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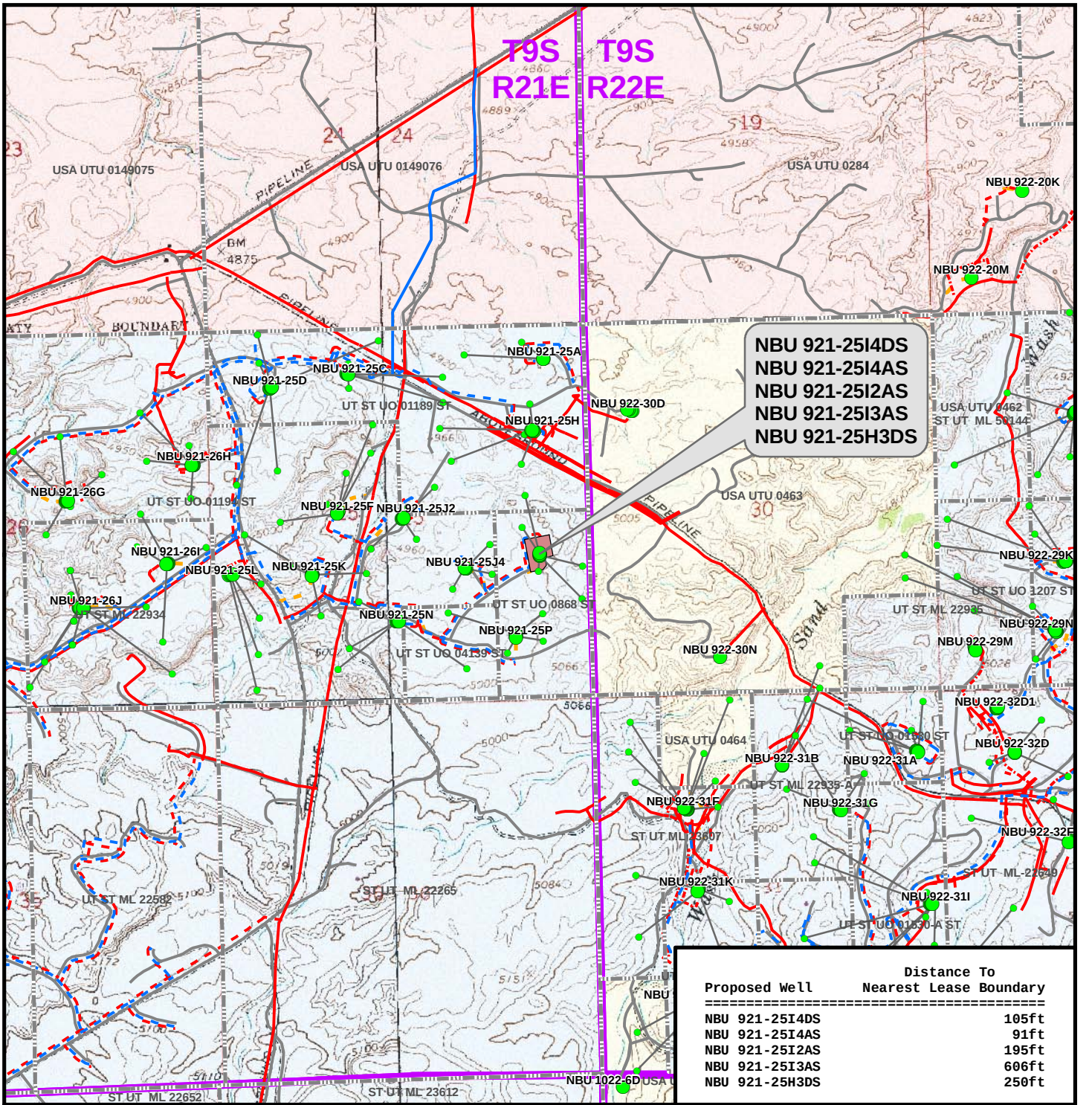
Scale: 1" = 500ft	NAD83 USP Central	Sheet No: 15 of 17
Drawn: CPS Date: 14 May 2010		
Revised: CPS Date: 15 Sept 2010		



Proposed Well	Distance To Nearest Lease Boundary
NBU 921-25I4DS	105ft
NBU 921-25I4AS	91ft
NBU 921-25I2AS	195ft
NBU 921-25I3AS	606ft
NBU 921-25H3DS	250ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-25I

TOPO E
NBU 921-25I4DS,
NBU 921-25I4AS, NBU 921-25I2AS,
NBU 921-25I3AS & NBU 921-25H3DS
LOCATED IN SECTION 25, T9S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 16	16 of 17
Drawn: CPS	Date: 14 May 2010		
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Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 921-25I
WELLS – NBU 921-25I4DS, NBU 921-25I4AS,
NBU 921-25I2AS, NBU 921-25I3AS & NBU 921-25H3DS
Section 25, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 145 feet to a service road to the east. Exit left and proceed in an easterly then southeasterly direction along service road approximately 0.3 miles to a second service road to the northeast. Exit left and proceed in a northeasterly direction along the second service road approximately 0.3 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 42.9 miles in a southerly direction.

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NBU 921-25H3DS
Surface: 2,074’ FSL 690’ FEL (NE/4SE/4)
BHL: 2,395’ FNL 870’ FEL (SE/4NE/4)
Mineral Lease: UO 1189 ST

NBU 921-25I2AS
Surface: 2,054’ FSL 687’ FEL (NE/4SE/4)
BHL: 2,445’ FSL 924’ FEL (NE/4SE/4)
Mineral Lease: UO 0868 ST

NBU 921-25I4AS
Surface: 2,045’ FSL 686’ FEL (NE/4SE/4)
BHL: 1,882’ FSL 91’ FEL (NE/4SE/4)
Mineral Lease: UO 0868 ST

NBU 921-25I4DS
Surface: 2,035’ FSL 684’ FEL (NE/4SE/4)
BHL: 1,420’ FSL 105’ FEL (NE/4SE/4)
Mineral Lease: UO 0868 ST

NBU 921-25I3AS
Monitor Well
Surface: 2,064’ FSL 689’ FEL (NE/4SE/4)
BHL: 1,823’ FSL 709’ FEL (NE/4SE/4)
Mineral Lease: UO 0868 ST

Pad: NBU 921-25I
Section 25 T9S R21E

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

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A. Existing Roads:

Existing roads consist of county roads and improved/unimproved lease roads. APC/KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

Approximately ±110' (0.02 miles) of road re-route to this pad location is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

Where roads are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

Turnouts; major cut and fills; culverts; bridges; gates; cattle guards; low water crossings; or modifications needed to existing infrastructure/facilities were determined at the on-site and, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the CIGE 98D, which is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of August 16, 2010.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of each well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) aboveground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM.

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Gathering facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is ±1,340' and the individual segments are broken up as follows:

±670' (0.1 miles) –New 8" buried gas pipeline from the meter to the edge of the pad.
±670' (0.1 miles) –New 8" buried gas pipeline from the edge of pad to the NBU 921-25J pad intersection.

The total liquid gathering pipeline distance from the meter to the tie in point is ±1,340' and the individual segments are broken up as follows:

±670' (0.1 miles) –New 4" buried liquid pipeline from the meter to the edge of the pad.
±670' (0.1 miles) –New 4" buried liquid pipeline from the edge of pad to the NBU 921-25J pad intersection.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. Kerr-McGee requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, Kerr-McGee requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

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- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.
No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods of Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should

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petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary to subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, accidental release, or in excess of reportable quantities will be managed according to the notification requirements of UDOGMs “Reporting Oil and Gas Undesirable Events” rule, and, where State wells are participatory to a Federal agreement, according to NTL-3A.

Materials Management

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Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

Please note that the NBU 921-25I3AS well is going to be developed as a pressure monitoring well.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1983 (NAD83) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil

placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by APC/KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

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On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

K. Other Information:

A Class I literature survey was conducted by Montgomery Archaeological Consultants, Inc. (MOAC). For additional details please refer to report MOAC 10-125

A paleontological reconnaissance has been conducted by Intermountain Paleo-Consulting (IPC) and a report will be submitted under separate cover.

A biological field survey was completed by Grasslands Consulting, Inc. on July 13, 2010. For additional details please refer to report GCI-291.

RECEIVED October 07, 2010

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

Danielle Piernot

October 7, 2010
Date

Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779

October 4, 2010

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 921-25I3AS
T9S-R21E
Section 25: NESE surface and bottom hole
Surface: 2064' FSL, 689' FEL
Bottom Hole: 1823' FSL, 709' FEL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 921-25I3AS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney
Sr. Staff Landman

API Well No: 43047512730000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UO 0868 ST

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Not Available

8. WELL NAME and NUMBER:
NBU 921-25I3AS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047512730000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6007 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2064 FSL 0689 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NESE Section: 25 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 11/17/2010	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CMT W/ 28 SX READY MIX.
SPUD WELL LOCATION ON NOVEMBER 17, 2010 AT 11:00 HRS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
11/23/2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE		**DATE**
N/A		11/19/2010

RECEIVED November 19, 2010

API Well No: 43047512730000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 0868 ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Not Available

8. WELL NAME and NUMBER: NBU 921-25I3AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047512730000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2064 FSL 0689 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 25 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 11/11/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	✓ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator respectfully requests to change this location from a monitor well to a producing well. The drilling plan will remain the same as in the approved sundry notice for this location which requested to deepen this well to the blackhawk formation approved on 10/14/2010. Please contact the undersigned with any questions. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 11/29/2010

By: Dustin Doucet

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 11/8/2010

RECEIVED November 08, 2010

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: P.O. Box 173779
city DENVER
state CO zip 80217
Phone Number: (720) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751269	NBU 921-25H3DS		NESE	25	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	11/17/2010			11/29/10	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 11/17/2010 AT 09:30 HRS. BHL= SENE

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751273	NBU 921-25I3AS		NESE	25	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	11/17/2010			11/29/10	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 11/17/2010 AT 11:00 HRS. BHL= NESE

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751270	NBU 921-25I2AS		NESE	25	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	11/17/2010			11/29/10	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 11/17/2010 AT 12:30 HRS. BHL= NESE

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

RECEIVED
NOV 22 2010
DIV. OF OIL, GAS & MINING

ANDY LYTLE
Name (Please Print)

Signature

REGULATORY ANALYST
Title

11/22/2010
Date

(5/2000)

API Well No: 43047512730000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 0868 ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-25I3AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047512730000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2064 FSL 0689 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 25 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 11/24/2010	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PROPETRO AIR RIG ON NOVEMBER 22, 2010. DRILLED 11" SURFACE HOLE TO 2740'. RAN 8 5/8" 28# IJ-55 SURFACE CSG. PUMP 160 BBLS FRESH WATER. PUMP 20 BBLS GEL WATER. PUMP 350 SX CLASS G PREM @ 15.8 PPG, 1.15 YD. NO CIRC. DROP PLUG ON THE FLY, DISPLACED W/ 166 BBLS WATER. NO RETURNS. BUMP PLUG & HOLD 900 PSI FOR 5 MIN. FLOAT HELD. FINAL LIFT 350 PSI. TOP OUT #1 W/ 100 SX CLASS G PREM @ 15.8 PPG, 1.15 YD. NO CEMENT TO SURFACE. TOP OUT #2 W/ 100 SX CLASS G PREM @ 15.8 PPG, 1.15 YD. WOC. NO CEMENT TO SURFACE. TOP OUT #3 W/ 150 SX SAME CEMENT. NO CEMENT TO SURFACE. TOP OUT #4 W/ 150 SX CLASS G PREM @ 15.8 PPG, 1.15 YD. GOOD CEMENT TO SURFACE. WORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
12/30/2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 11/29/2010

RECEIVED November 29, 2010

API Well No: 43047512730000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 0868 ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-25I3AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047512730000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2064 FSL 0689 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 25 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/10/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
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	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
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	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Change Total Depth

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore LP, respectfully requests to change the Total Depth for this location FROM: 10,650' TO: 9,607'. Kerr-McGee no longer wishes to produce out of the Blackhawk formation, therfore this well will not be as deep as previously requested. Please see the attached drilling diagram for additional details. All other information remains the same as originally permitted. Thanks!

Approved by the Utah Division of Oil, Gas and Mining

Date: 12/09/2010

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 12/8/2010

RECEIVED December 08, 2010

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

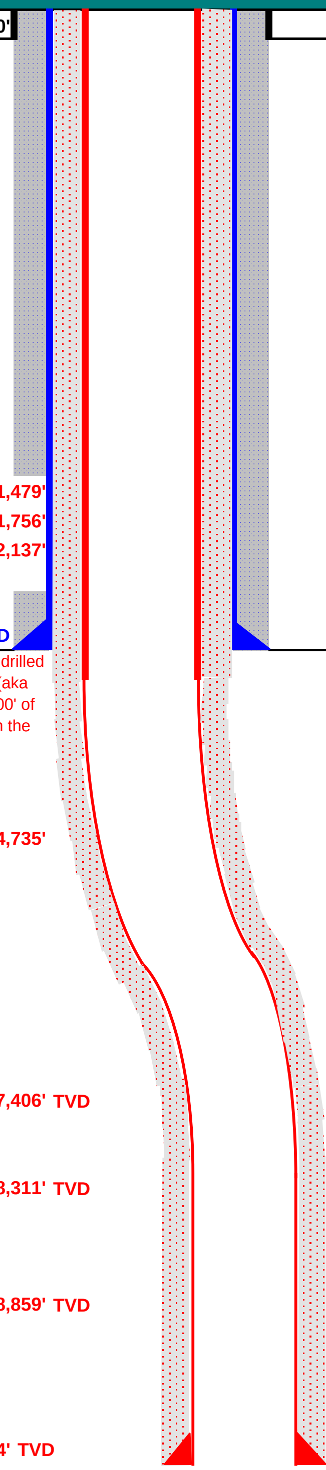
COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	December 8, 2010		
WELL NAME	**NBU 921-25I3AS**	TD	9,594'	TVD	9,607' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	4,980'

SURFACE LOCATION	NE/4 SE/4	2,064' FSL	689' FEL	Sec 25	T 9S	R 21E	
	Latitude:	40.005435	Longitude:	-109.492428			NAD 27
BTM HOLE LOCATION	NE/4 SE/4	1,823' FSL	709' FEL	Sec 25	T 9S	R 21E	
	Latitude:	40.004773	Longitude:	-109.492499			NAD 27

OBJECTIVE ZONE(S): Wasatch/Mesaverde

ADDITIONAL INFO: Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			11"	8-5/8", 28#, IJ-55, LTC	Air mist
	Green River @	1,479'			
	Top of Birds Nest @	1,756'			
	Mahogany @	2,137'			
	Preset f/ GL @	2,390' MD			
	Wasatch @	4,735'			
Mud logging program TBD Cased hole logging program from TD - surf csg			7-7/8"	4-1/2" 11.6# I-80 or equivalent BTC csg	Water / Fresh Water Mud 8.3-12.4 ppg
	Mverde @	7,406' TVD			
	MVU2 @	8,311' TVD			
	MVU1 @	8,859' TVD			
Max anticipated Mud required 12.4 ppg	TD @	9,594' TVD 9,607' MD			



All water flows encountered while drilling will be reported to the appropriate agencies.

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the actual depth of the loss zone.

RECEIVED December 08, 2010

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,390	28.00	IJ-55	LTC	0.83	1.68	5.15
								7,780	6,350	278,000
PRODUCTION	4-1/2"	0	to	9,607	11.60	I-80	BTC	1.91	1.03	2.86

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.25

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.4 ppg) 0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,966 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 12.4 ppg) 0.63 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 6,077 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	TAIL	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
SURFACE		**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	1,890'	65/35 Poz + 6% Gel + 10 pps gilsonite	170	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,227'	Premium Lite II +0.25 pps	310	10%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,380'	50/50 Poz/G + 10% salt + 2% gel	1,040	10%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: ______________________ **DATE:** ____________

John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: ______________________ **DATE:** ____________

John Merkel / Lovel Young

RECEIVED December 08, 2010

BLM - Vernal Field Office - Notification Form

Operator KERR MCGEE Rig Name/# H&P 311
Submitted By DOUG BARONE Phone Number 435- 790-1884
Well Name/Number NBU 921-25I3AS
Qtr/Qtr NE/SE Section 25 Township 9S Range 21E
Lease Serial Number UO 0868 ST
API Number 43-047-51273

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time _____ _____ AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

☐ Surface Casing
☐ Intermediate Casing
☐ Production Casing
☐ Liner
☐ Other

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DEC 2 7 2010
DIV. OF OIL, GAS & MINING

Date/Time _ __ AM ☐ PM ☐

BOPE

☒ Initial BOPE test at surface casing point
☐ BOPE test at intermediate casing point
☐ 30 day BOPE test
☐ Other

Date/Time 12/27/2010 11:00 AM ☒ PM ☐

Remarks _____

API Well No: 43047512730000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 0868 ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-25I3AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047512730000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2064 FSL 0689 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 25 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 1/4/2011	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

FINISHED DRILLING FROM 2740' TO 9620' ON JANUARY 1, 2011. RAN 4 ½" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER, LEAD CEMENT W/ 525 SX CLASS G ECONOCEM @ 12.4 PPG, 2.03 YD. TAILED CEMENT W/ 1160 SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.25 YD. DISPLACED W/ 148 BBLS WATER W/ BIOCIDE & CLAY INHIBITOR. BUMPED PLUG @ 2535 PSI. PRESSURED UP CSG TO 3700 PSI & HELD FOR 5 MIN. RELEASED PRESSURE & FLOATS HELD. FLOWED BACK 2 BBLS. EST TOC TAIL @ 4250', LEAD @ 900'. HAD 100% RETURNS, AND 5 BBLS SPACER BACK TO SURFACE. RD CEMENTERS AND CLEANED PITS. RELEASED H&P RIG #311 ON JANUARY 4, 2011 @ 12:30 HRS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
01/06/2011

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 1/5/2011

RECEIVED January 05, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 0868 ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-25I3AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047512730000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2064 FSL 0689 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 25 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 3/30/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL LOCATION WAS PLACED ON PRODUCTION ON 03/30/2011 AT 12:15 PM. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 3/31/2011

RECEIVED Mar. 31, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: UO 0868 ST
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: UTU63047A
8. WELL NAME and NUMBER: NBU 921-25I3AS
9. API NUMBER: 4304751273
10 FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER
b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P.

3. ADDRESS OF OPERATOR: P.O.BOX 173779 CITY DENVER STATE CO ZIP 80217
PHONE NUMBER: (720) 929-6100

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: NESE 2064 FSL 689 FEL S25, T9S, R21E
BHL reviewed by HSM
AT TOP PRODUCING INTERVAL REPORTED BELOW: NESE 1835 FSL 717 FEL S25, T9S, R21E
AT TOTAL DEPTH: NESE 1816 FSL 708 FEL S25, T9S, R21E

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NESE 25 9S 21E S
12. COUNTY: UINTAH
13. STATE: UTAH

14. DATE SPUDDED: 11/17/2010
15. DATE T.D. REACHED: 1/1/2011
16. DATE COMPLETED: 3/30/2011 ABANDONED ☐ READY TO PRODUCE ☑
17. ELEVATIONS (DF, RKB, RT, GL): 4980 GL

18. TOTAL DEPTH: MD 9,620 TVD 9,608
19. PLUG BACK T.D.: MD 9,556 TVD 9,544
20. IF MULTIPLE COMPLETIONS, HOW MANY? *
21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
SCBL-BHV-SD/DSN/ACTR

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
11"	8 5/8" IJ-55	28#		2,733		850		0	
7 7/8"	4 1/2" I-80	11.6#		9,599		1,685		460	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,885							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) MESAVERDE	7,408	9,382		
(B) WSMVD				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
7,408 9,382	0.36	162	Open ☑ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7408 - 9382	PUMP 8,392 BBLS SLICK H2O & 323,215 LBS SAND

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: PROD

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(5/2000)

(CONTINUED ON BACK)

31. INITIAL PRODUCTION — **INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
3/30/2011	4/8/2011	24		0	2,576	396	FLOWING

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
20/64	1,761	2,450					0	2,576	396	PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	1,474				
BIRD'S NEST	1,765				
MAHOGANY	2,140				
WASATCH	4,716	7,390			
MESAVERDE	7,390	9,620	TD		

35. ADDITIONAL REMARKS (Include plugging procedure)

Attached is the chronological well history and final survey. Completion chrono details individual frac stages.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) ANDREW LYTLE TITLE REGULATORY ANALYST

SIGNATURE DATE 4/29/11

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010	
Project: UTAH-UINTAH	Site: NBU 921-25I PAD		Rig Name No: H&P 311/311, PROPETRO/
Event: DRILLING	Start Date: 11/13/2010		End Date: 1/4/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
11/22/2010	0:00 - 3:00	3.00	PRPSPD	21	D	P		WAIT FOR COLLARS AND BHA TO BE CHECKED BY COMMON SENSE INSPECTION, TAKE ONE COLLAR TO VERNAL BRING TWO BACK TO LOC
	3:00 - 11:00	8.00	DRLSUR	13	A	P		WAIT ON PRIMARY SURFACE CMT JOB TO BE TOPPED OFF ON PREVIOUS WELL
	11:00 - 13:00	2.00	MIRU	01	B	P		DRESS TOP OF CONDUCTOR. INSTALL DIVERTER HEAD AND BOWIE LINE. BUILD DITCH. MOVE RIG OVER HOLE AND RIG UP.. SET CATWALK AND PIPE RACKS. RIG UP AND PRIME PIT PUMP AND MUD PUMP.
	13:00 - 13:30	0.50	PRPSPD	01	B	P		P/U 1.50 DEG BENT HOUSING HUNTING MTR SN 8040 . 7/8 LOBE .16 RPM. M/U Q506 SN 7023548 1ST RUN, W/ 6-18'S. INSTALL RUBBER.
	13:30 - 15:00	1.50	DRLSUR	02	A	P		SPUD SURFACE 11-22-2010 @ 13:30 HRS. DRILL 11" SURFACE HOLE F/40'-200' (160' @ 106'/HR) PSI ON/ OFF 690/410, UP/ DOWN/ ROT 27/22/25. 500 GPM, 45 RPM ON TOP DRIVE, 15-18K WOB
	15:00 - 16:30	1.50	DRLSUR	06	A	P		TOOH, PU AND ORIENT DIR TOOLS, TIH T/200'
	16:30 - 0:00	7.50	DRLSUR	02	C	P		DRILL/ SLIDE 11" SURFACE HOLE F/200'-1070' (870' 116'/HR) PSI ON/ OFF 1260/1070, UP/ DOWN/ ROT 62/54/58. 135 SPM 18-20K WOB, 45 RPM ON TOP DRIVE. CIRCULATING RESERV PIT
11/23/2010	0:00 - 20:00	20.00	DRLSUR	02	C	P		DRILL/ SLIDE 11" SURFACE HOLE F/1070'-2740' (1670' 116'/HR) PSI ON/ OFF 1920/1710, UP/ DOWN/ ROT 78/72/75. 135 SPM 18-20K WOB, 45 RPM ON TOP DRIVE. CIRCULATING RESERV PIT
	20:00 - 21:30	1.50	DRLSUR	05	A	P		CIRC AND COND HOLE CLEAN
	21:30 - 0:00	2.50	DRLSUR	06	A	P		TOOH, LDDS AND DIR BHA
11/24/2010	0:00 - 2:00	2.00	DRLSUR	06	A	P		FINISH LAYING DOWN DRILL STRING AND DIR BHA
	2:00 - 3:00	1.00	DRLSUR	12	A	P		MOVE CATWALK AND PIPE RACKS, MOVE CSG OVER TO WORK AREA
	3:00 - 7:30	4.50	CSG	12	C	P		HELD SAFETY MEETING, RUN CSG. RAN 61JTS OF 8-5/8", 28#, J-55, 8 RND CSG W/ LTC THREADS. LANDED FLOAT SHOE @ 2707.55' KB. RAN BAFFLE PLATE IN TOP OF SHOE JT LANDED 2661.39' KB. FILL CSG @ 500', 1500', AND 2700'.
	7:30 - 8:00	0.50	DRLSUR	12	B	P		RIG UP PRO PETRO CEMENTING EQUIP
	8:00 - 10:00	2.00	DRLSUR	12	E	P		HOLD SAFETY MEETING. INSTALL CEMENT HEAD. PSI TEST TO 2500 PSI. PUMP 160 BBLS OF 8.3# H20 AHEAD. NO CIRC. PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. NO CIRC. PUMP 350 SX (72 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE). NO CIRC. DROP PLUG ON FLY AND DISPLACE W/166 BBLS OF 8.3# H20. NO RETURNS, BUMP PLUG AND HOLD 900 PSI FOR 5 MIN. FLOAT HELD(FINAL LIFT PRESS 350 PSI)
	10:00 - 10:30	0.50	DRLSUR	12	F	P		TOP OUT W/100 SKS CLASS"G" 15.8 PPG CEMENT W/1.15/CUFT/SK YIELD W/4% CACL2,NO CEMENT TO SURF.
	10:30 - 12:00	1.50	DRLSUR	13	A	P		WAIT ON CEMENT
	12:00 - 12:30	0.50	DRLSUR	12	F	P		TOP OUT W/100 SKS CLASS"G" 15.8 PPG CEMENT W/1.15/CUFT/SK YIELD W/4% CACL2,NO CEMENT TO SURF.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010	
Project: UTAH-UINTAH	Site: NBU 921-25I PAD		Rig Name No: H&P 311/311, PROPETRO/
Event: DRILLING	Start Date: 11/13/2010		End Date: 1/4/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	12:30 - 14:30	2.00	DRLSUR	13	A	P		WAIT ON CEMENT
	14:30 - 15:00	0.50	DRLSUR	12	F	P		TOP OUT W/150 SKS CLASS"G" 15.8 PPG CEMENT W/1.15/CUFT/SK YIELD W/4% CACL2,NO CEMENT TO SURF.
	15:00 - 17:00	2.00	DRLSUR	13	A	P		WAIT ON CEMENT
	17:00 - 17:30	0.50	DRLSUR	12	A	P		TOP OUT W/150 SKS CLASS"G" 15.8 PPG CEMENT W/1.15/CUFT/SK YIELD W/4% CACL2 2BBLS GOOD CEMENT TO SURF.,RELEASE RIG @17:30 11/24/2010
	17:30 - 17:30	0.00	DRLSUR					CONDUCTOR CASING: Cond. Depth set: 40' Cement sx used: 28 SPUD DATE/TIME: 11/22/2010 13:30 SURFACE HOLE: Surface From depth: 40' Surface To depth: 2,730 Total SURFACE hours: 29.00 Surface Casing size: 8.625" # of casing joints ran: 63 Casing set MD: 2,711.0 # sx of cement: 350/500 Cement blend (ppg:) 15.8/15.8 Cement yield (ft3/sk): 1.15/1.15 # of bbls to surface: 3 Describe cement issues: NONE Describe hole issues: NONE
12/27/2010	14:00 - 16:00	2.00	MIRU	01	C	P		PREPARE RIG TO SKID, SKID RIG OVER 2ND HOLE OF 5, CENTER OVER HOLE, RECONNECT VIBRATING HOSE. CENTER CATWALK UNDER BEAVER SLIDE.
	16:00 - 18:30	2.50	MIRU	14	A	P		CHANGE OUT WEATHERFORD QUICK CONNECT O-RING. NIPPLE UP BOPE. RE-INSTALL FLOW LINE. FUNCTION TEST BOPE. INSTALL TURN BUCKLES. DIG MOUSE HOLE.
	18:30 - 23:00	4.50	MIRU	15	A	P		PRESSURE TEST UPPER AND LOWER TOP DRIVE VALVES, FLOOR VALVE, DART VALVE, PIPE RAMS, BLIND RAMS, INSIDE AND OUTSIDE BOP VALVES, HCR VALVE, KILL LINE CHECK VALVE, CHOKE LINE, CHOKES, AND CHOKE MANIFOLD VALVES TO 5000 PSI FOR 10 MIN. AND 250 PSI FOR 5 MIN. TEST ANNULLAR TO 2500 PSI FOR 10 MIN AND 250 PSI FOR 5 MIN. TEST CSG TO 1500 PSI FOR 30 MIN. (CHANGED O-RINGS ON TEST PLUG, CHANGE OUT 1" HIGH PRESSURE FITTING).
	23:00 - 0:00	1.00	MIRU	09	A	P		SLIP AND CUT 80' OF DRILL LINE.
12/28/2010	0:00 - 4:00	4.00	MIRU	06	A	P		P/U SDI 1.5 BH .23 RPG MOTOR, M/U Q506F SN 7127696 W/ 6-14'S, SCRIBE MOTOR, ORIENT EM TOOL. TRIP IN HOLE TO 2645'. TAG CEMENT 2645'.
	4:00 - 5:00	1.00	DRLPRO	02	F	P		SPUD 12/28/2010 04:00. DRILL CEMENT AND FLOAT EQUIPMENT FROM 2645'-2761'. WOB 12 K, GPM 350. RPM 35.
	5:00 - 7:00	2.00	DRLPRO	02	D	P		DRILL SLIDE 2761'-3112' (351', 175'/HR) WOB 18-21K, RPM -45, MOT RPM- 115, TOR ON/OFF-9/7, GPM 504, PSI ON/OFF 1750/1250, DIFF 420, STR WT UP/DOWN/ROT-114/100/105, DRAG 9K. SLIDE 25' @ 140'/HR. SLIDE 7% ROT 93%. CIRC RESERVE PIT 8.4# WATER.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010	
Project: UTAH-UINTAH	Site: NBU 921-25I PAD		Rig Name No: H&P 311/311, PROPETRO/
Event: DRILLING	Start Date: 11/13/2010		End Date: 1/4/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:00 - 7:30	0.50	DRLPRO	07	A	P		RIG SERVICE, SERVICE TOP DRIVE.
	7:30 - 8:00	0.50	DRLPRO	22	L	Z		UNABLE TO TALK DOWN TO EM TOOL TO CHANGE TO MAGNETICS. TROUBLE SHOOT SURFACE EQUIPMENT.
	8:00 - 8:30	0.50	DRLPRO	02	D	P		DRILL SLIDE 3112'-3205' (93', 186'/HR) WOB 18-21K, RPM -45, MOT RPM- 115, TOR ON/OFF-9/7, GPM 504, PSI ON/OFF 1750/1250, DIFF 500, STR WT UP/DOWN/ROT-114/100/105, DRAG 9K. SLIDE 0'. CIRC RESERVE PIT 8.4# WATER.
	8:30 - 9:30	1.00	DRLPRO	22	L	Z		STILL UNABLE TO TALK DOWN TO EM TOOL TO CHANGE TO MAGNETICS. WAIT ON NEW EQUIPMENT FROM ANOTHER RIG. STILL UNABLE TO TALK DOWN.
	9:30 - 11:30	2.00	DRLPRO	22	L	Z		TRIP OUT OF HOLE AND CHANGE OUT EM TOOL. RE-SCRIBE MOTOR AND ORIENT DIRECTIONAL TOOLS.
	11:30 - 14:00	2.50	DRLPRO	22	L	Z		TRIP IN HOLE W/ NEW EM TOOL TO 3100'.
	14:00 - 16:00	2.00	DRLPRO	09	A	Z		FLOOR HAND NOTICED BAD SPOT IN DRILL LINE. CUT AND SLIP DRILL LINE. CIRC THROUGH DP SWEDGE AND HOSE.
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DRILL SLIDE 3205'- 4300' (1095', 137'/HR) WOB 18-23K, RPM -45, MOT RPM- 115, TOR ON/OFF-10/7, GPM 504, PSI ON/OFF 2150/1650, DIFF 500, STR WT UP/DOWN/ROT-130/110/120, DRAG 10K. SLIDE 91' @ 90'/HR SLIDE 8% ROTATE 92%. CIRC RESERVE PIT 8.4# WATER
12/29/2010	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL SLIDE 4300'-5191' (891',149'/HR) WOB 18-23K, RPM -45, MOT RPM- 115, TOR ON/OFF-10/7, GPM 504, PSI ON/OFF 2050/1550, DIFF 500, STR WT UP/DOWN/ROT-146/1126/136, DRAG 10K. SLIDE 0' SLIDE 0% ROTATE 100%. CIRC RESERVE PIT 8.4# WATER
	6:00 - 11:30	5.50	DRLPRO	02	D	P		DRILL SLIDE 5191'-5780' (589', 107'/HR) WOB 18-23K, RPM -45, MOT RPM- 115, TOR ON/OFF-10/7, GPM 504, PSI ON/OFF 2050/1550, DIFF 500, STR WT UP/DOWN/ROT-150/130/140, DRAG 10K. SLIDE 65' @ 60' HR SLIDE 11% ROTATE 89%. CIRC RESERVE PIT 8.4# WATER. HOLE SEEPING, USE SAWDUST AND GEL SWEEPS TO MAINTAIN VOLUME.
	11:30 - 12:30	1.00	DRLPRO	22	G	X		LOSS COMPLETE CIRC. WORK PIPE AND REDUCED PUMP OUT PUT TO 294 GPM, PUMP HIGH VIS SWEEP W/ 20% LCM, START MUD UP. REGAIN PARTIAL CIRC. RAISE LCM TO 3% TO REGAIN FULL CIRC. LOSS 400 BBLS WATER. MUD WT IN 8.6 VIS 32 LCM 3%, MUD OUT 8.5+ VIS 31 LCM 3%.
	12:30 - 18:00	5.50	DRLPRO	02	D	P		DRILL SLIDE 5780'-6350' ((570',104'/HR) WOB 18-23K, RPM -40, MOT RPM- 108, TOR ON/OFF-10/7, SPM 105 GPM 471, PSI ON/OFF 2050/1550, DIFF 500, STR WT UP/DOWN/ROT-175/145/155, DRAG 20K. SLIDE 25' @ 50' HR SLIDE 4% ROTATE 96%. HOLE STARTED SEEPING, RAISE LCM TO 6%. MUD WT IN 8.8+ VIS 36/ OUT WT8.8+ VIS 34 LCM 6%. LOSS 50 BBLS MUD.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010
Project: UTAH-UINTAH	Site: NBU 921-25I PAD	Rig Name No: H&P 311/311, PROPETRO/
Event: DRILLING	Start Date: 11/13/2010	End Date: 1/4/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILL SLIDE 6350'-6805' (455', 76'/HR) WOB 18-24K, RPM -40, MOT RPM- 102, TOR ON/OFF-10/7, SPM 100 GPM 444, PSI ON/OFF 2250/1800, DIFF 450, STR WT UP/DOWN/ROT-176/155/165, DRAG 11K. SLIDE 45' @ 50' HR SLIDE 10% ROTATE 90%. HOLE STARTED SEEPING, RAISE LCM TO 8%. MUD WT IN 9.5+ VIS 36/ OUT WT 9.4+ VIS 37 LCM 8%
12/30/2010	0:00 - 5:30	5.50	DRLPRO	02	D	P		DRILL SLIDE 6805'-7168' (363',66'/HR) WOB 18-24K, RPM -40, MOT RPM- 102, TOR ON/OFF-10/8, SPM 100 GPM 444, PSI ON/OFF 2400/2000, DIFF 400, STR WT UP/DOWN/ROT-180/151/168, DRAG 12K. SLIDE 10' @ 50' HR SLIDE 3% ROTATE 97%. HOLE STARTED SEEPING, RAISE LCM TO 9%. LOSS 30 BBLS MUD. MUD WT IN 9.9+ VIS 36/ OUT WT 9.9+ VIS 37 LCM 9%
	5:30 - 6:00	0.50	DRLPRO	07	A	P		RIG SERVICE. FUNCTION BOP'S. CHANGE DIES IN GRABBER BOX.
	6:00 - 16:30	10.50	DRLPRO	02	D	P		DRILL SLIDE 7168'-7734' (566' (54'/HR) WOB 20-25K, RPM 40-45, MOTOR RPM 108, TOR ON OFF 10/8 SPM 105 GPM 471, PSI ON/OFF 2400/2000, DIFF 400, STR WT UP/DOWN/ROT-185/153/170, DRAG 15K. SLIDE 20' @ 20' HR SLIDE 4% ROTATE 96%. MUD WT IN 10.4 VIS 36/ OUT WT10.3+ VIS 37 LCM 8%. NO LOSSES AT THIS TIME.
	16:30 - 17:00	0.50	DRLPRO	07	A	P		RIG SERVICE, SERVICE TOP DRIVE.
	17:00 - 0:00	7.00	DRLPRO	02	D	P		DRILL SLIDE 7734'-8105' (371', 53'/HR) WOB 20-25K, RPM 40-45, MOTOR RPM 108, TOR ON OFF 11/8 SPM 105 GPM 471, PSI ON/OFF 2450/2050, DIFF 400, STR WT UP/DOWN/ROT-190/1631/173, DRAG 17K. SLIDE 20' @ 18' HR SLIDE 5% ROTATE 95%. MUD WT IN 10.7+ VIS 36/ OUT WT 10.7 VIS 37 LCM 8%. NO LOSSES AT THIS TIME.
12/31/2010	0:00 - 13:00	13.00	DRLPRO	02	D	P		DRILL SLIDE 8105'-8670' (565, 43'/HR) WOB 20-25K, RPM 40-45, MOTOR RPM 108, TOR ON OFF 11/8 SPM 105 GPM 471, PSI ON/OFF 2500/2150, DIFF 350, STR WT UP/DOWN/ROT-205/170/181, DRAG 24K. SLIDE 25' @ 18' HR SLIDE 5% ROTATE 95%. MUD WT IN 11 VIS 40/ OUT WT 10.8+ VIS 39. LCM 5%. NO LOSSES AT THIS TIME.
	13:00 - 13:30	0.50	DRLPRO	07	A	P		RIG SERVICE, FUNCTION BOP'S.
	13:30 - 19:00	5.50	DRLPRO	02	D	P		DRILL SLIDE 8670'-8854 (184', 34'/HR) WOB 20-27K, RPM 40-45, MOTOR RPM 108, TOR ON OFF 11/8 SPM 105 GPM 471, PSI ON/OFF 2700/2400, DIFF 300, STR WT UP/DOWN/ROT-202/170/183, DRAG 19K. SLIDE 18' @ 15' HR SLIDE 9% ROTATE 91%. MUD WT IN 11.7 VIS 40/ OUT WT 11.7 VIS 40. LCM 5%. NO LOSSES AT THIS TIME. (BIT DROPPED TO 13'/HR)
	19:00 - 20:00	1.00	DRLPRO	05	C	P		CIRC BOTTOMS UP.
	20:00 - 0:00	4.00	DRLPRO	06	A	P		TRIP OUT OF HOLE FOR BIT. PULL 2 JTS WET OFF BOTTOM. 45 K DRAG. PUMP 13.7# 40 BBL PILL, BLOW OUT KELLY, TRIP OUT OF HOLE, STAND BACK DIRECTIONAL TOOLS, BREAK BIT AND LD MUD MOTOR.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010
Project: UTAH-UINTAH	Site: NBU 921-25I PAD	Rig Name No: H&P 311/311, PROPETRO/
Event: DRILLING	Start Date: 11/13/2010	End Date: 1/4/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
1/1/2011	0:00 - 7:00	7.00	DRLPRO	06	A	P		PICK UP STRAIGHT MOTOR (HUNTING .16 RPG) M/U Q506F BIT W/ 6-15'S, OPEN PIPE RAMS AND TRIP IN HOLE. FILL PIPE 2700', 6500'. NO TIGHT HOLE AND NO FILL. .3 GAS CUT FROM BOTTOMS UP. NO FLARE.
	7:00 - 12:30	5.50	DRLPRO	02	D	P		DRILLED 8854'-9155', 301' IN 5.5 HRS, 54.7 FPH. 100% ROTATING. WOB WAS 24-25K, PUMP #2 AT 110 SPM, 495 GPM, MOTOR TURNING AT 68 RPM WITH TOPDRIVE AT 55 RPM FOR A TOTAL OF 123 RPM AT THE BIT. DIFFERENTIAL PRESSURE WAS 250-350 PSI. ON/OFF BOTTOM PUMP PRESSURE WAS 2650/2350 PSI. ON/OFF BOTTOM TORQUE WAS 11/10K. PU/SO/ROT WAS 219/150/180. MW 11.8 PPG, 44 VIS, MAINTAINING 5% LCM.
	12:30 - 13:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	13:00 - 21:30	8.50	DRLPRO	02	D	P		DRILLED 9155'-9620', 465' IN 8.5 HRS, 54.7 FPH. 100% ROTATING. WOB WAS 24-25K, PUMP #2 AT 95 SPM, 428 GPM, MOTOR TURNING AT 60 RPM WITH TOPDRIVE AT 55 RPM FOR A TOTAL OF 115 RPM AT THE BIT. DIFFERENTIAL PRESSURE WAS 250-350 PSI. ON/OFF BOTTOM PUMP PRESSURE WAS 2400/2100 PSI. ON/OFF BOTTOM TORQUE WAS 11/10K. PU/SO/ROT WAS 229/161/190. RAISING MW TO 12.3 PPG, 44 VIS, MAINTAINING 5% LCM. LAST 100' OF DRILLING WE SLOWED PUMPES DOWN TO 95 SPM JUST TO REDUCE THE PUMP PRESSURE/ECD.
	21:30 - 23:30	2.00	DRLPRO	05	C	P		CIRC AND CONDITION FOR WIPER TRIP. CIRCULATING AT 95 SPM, 428 GPM AT 2400 PSI. MW IN AND OUT IS 12.3 PPG, 44 VIS WITH 5% LCM.
	23:30 - 0:00	0.50	DRLPRO	05	J	P		FLOW CHECKED WELL, NO FLOW.
1/2/2011	0:00 - 4:00	4.00	DRLPRO	06	E	P		TRIP OUT OF HOLE, NO OVERPULLS OR TITE SPOTS. TOH TO CASING SHOE.
	4:00 - 4:30	0.50	DRLPRO	05	J	P		FLOW CHECK WELL, NO FLOW.
	4:30 - 14:00	9.50	DRLPRO	08	B	Z		AIR COMPRESSORS STOPPED WORKING. ONLY HAD 2 PHASES GOING TO COMPRESSORS. FOUND AND REPAIRED GROUND FAULT.
	14:00 - 14:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	14:30 - 19:30	5.00	DRLPRO	06	E	P		TRIPPED IN THE HOLE, NO TITE SPOTS. WASHED AND REAMED LAST 50' TO BOTTOM, NO FILL.
	19:30 - 21:30	2.00	DRLPRO	05	C	P		CIRCULATED AND CONDITION MUD. HAD A 10' FLARE ON GAS BUSTER THEN DIED OFF. HAD SEVERAL LITE SPOTS IN THE MUD. FINAL MW WAS 12.3 PPG, 44 VIS WITH 4% LCM.
	21:30 - 22:00	0.50	DRLPRO	05	J	P		DROPPED SURVEY WHILE WE FLOW CHECKED WELL, NO FLOW.
	22:00 - 0:00	2.00	DRLPRO	06	B	P		PUMPED SLUG, BLEW DOWN TOPDRIVE AND TRIPPED OUT OF THE HOLE. NO OVERPULLS OR TITE SPOTS.
1/3/2011	0:00 - 3:00	3.00	DRLPRO	06	B	P		CONTINUED TO TRIP OUT OF THE HOLE. FLOW CHECKED AT THE SHOE. RECOVERED SURVEY TOOL, LD BIT AND MUD MOTOR.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010	
Project: UTAH-UINTAH	Site: NBU 921-25I PAD		Rig Name No: H&P 311/311, PROPETRO/
Event: DRILLING	Start Date: 11/13/2010		End Date: 1/4/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	3:00 - 11:00	8.00	DRLPRO	11	D	P		RIGGED UP HALLIBURTON AND RAN TRIPLE COMBO LOG SWEEP. LOGGERS TD WAS 9582' (DRILLERS 9620'), BHT WAS 175 DEGREES. BASE OF SURFACE CASING WAS 2720'. RAN SPECTRAL DENSITY LOG FROM 9579' TO BASE OF SURFACE CASING, RAN DUAL SPACED NEUTRON FROM TD TO SURFACE CASING. RAN A ARRAY COMPENSATED TRUE RESISTIVITY FROM TD TO SURFACE SHOE. RAN A CALIPER LOG FROM TD TO SURFACE CASING SHOE AND A GAMMA RAY FROM TD TO 200'. RAN BOREHOLE VOLUME LOG. NO TITE SPOTS WENT STRAIGHT TO BOTTOM.
	11:00 - 11:30	0.50	CSG	12	A	P		PULLED WEAR BUSHING
	11:30 - 14:00	2.50	CSG	12	A	P		RIGGED UP CASING CREW AND EQUIPMENT. CHANGED OUT BALES AND ELEVATORS.
	14:00 - 23:00	9.00	CSG	12	C	P		MADE UP WITH THREAD LOCK, SHOE, SHOE TRACK AND FLOAT COLLAR. INSTALLED CENTRALIZER ON SHOE TRACK. RAN 228 JTS OF 4.5", I80, 11.6#, BTC, R3. SET 20' MARKER JOINTS AT 7412' AND 4739'. SET CASING AT 9599' WITH FLOAT COLLAR AT 9557'. FILLED AND CIRCULATE CASING AT THE SURFACE CASING SHOE, 5500' AND 7050'.
	23:00 - 0:00	1.00	CSG	12	A	P		FILLED PIPE AND STARTED CIRCULATING WELL. RD CASING CREW AND EQUIPMENT, RIGGING UP CEMENTERS. CIRCULATING WITH FULL RETURNS AT 360 GPM (8 BPM) AT 1050 PSI. NEVER SAW ANY BOTTOMS UP GAS, MW IS 12.4 PPG, 43 VIS WITH 4% LCM.
1/4/2011	0:00 - 2:00	2.00	CSG	12	B	P		CONTINUED RIGGING UP CEMENTERS. CIRCULATED WELL AT 360 GPM AT 1050 PSI, NO LOSSES OR GAS.
	2:00 - 5:00	3.00	CSG	12	E	P		PRESSURE TESTED LINES TO 5000 PSI. PUMPED 40 BBLS OF H20 SPACER AHEAD, PUMPED 189.8 BBLS (525 SX OF 12.4#, 2.03 CFT/SX, 11.07 GAL/SK) LEAD ECONO CEMENT. PUMPED 258 BBLS (1160 SX OF 14.3#, 1.25 YD, 5.41 GAL/SK) POZ PREMIUM 50/50 TAIL CEMENT. SHUT DOWN AND WASHED LINES, DROP 4.5" TOP PLUG, PUMP 148 BBLS OF H20 TREATED WITH BIOCIDE AND CLAY INHIBITOR. BUMPED PLUG AT 2535 PSI, PRESSURED UP CSG TO 3700 PSI AND HELD FOR 5 MIN. RELEASED PRESSURE AND FLOATS HELD, FLOWED BACK 2 BBLS. EST TOC TAIL @ 4250', LEAD @ 900'. HAD 100% RETURNS, HAD +/- 5 BBLS SPACER WATER BACK TO SURFACE.
	5:00 - 6:30	1.50	CSG	12	B	P		HELD SAFETY MEETING AND RIGGED DOWN CEMENTERS.
	6:30 - 10:00	3.50	CSG	14	A	P		ND BOPE, PICK UP BOP STACK AND SET C22 SLIPS WITH 95K. CUT OFF CASING AND LD JOINT.
	10:00 - 12:30	2.50	CSG	01	C	P		PREPARE TO SKID RIG. RELEASED RIG AT 1230 HRS ON TUESDAY JANUARY 4.

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010 Spud Date: 11/22/2010	
Project: UTAH-UINTAH	Site: NBU 921-25I PAD	Rig Name No: H&P 311/311, PROPETRO/
Event: DRILLING	Start Date: 11/13/2010	End Date: 1/4/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	12:30 - 12:30	0.00	CSG					CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28 SPUD DATE/TIME: 11/22/2010 13:30 SURFACE HOLE: 11 Surface From depth: 40 Surface To depth: 2,730 Total SURFACE hours: 29.00 Surface Casing size: 8 5/8 # of casing joints ran: 63 Casing set MD: 2,711.0 # sx of cement: 350+500 Cement blend (ppg:) 15.8 Cement yield (ft3/sk): 1.15 # of bbls to surface: 3 Describe cement issues: NONE Describe hole issues: NONE PRODUCTION: Rig Move/Skid start date/time: 12/27/2010 14:00 Rig Move/Skid finish date/time: 12/27/2010 15:30 Total MOVE hours: 1.5 Prod Rig Spud date/time: 12/28/2010 4:00 Rig Release date/time: 1/4/2011 12:30 Total SPUD to RR hours: 176.5 Planned depth MD 10,796 Planned depth TVD 10,721 Actual MD: 9,620 Actual TVD: 9,608 Open Wells $: $751264 AFE $: $1,033,465 Open wells $/ft: $78.09 PRODUCTION HOLE: 7.875 Prod. From depth: 2,761 Prod. To depth: 9,620 Total PROD hours: 89 Log Depth: 9582 Float Collar Top Depth: 9557 Production Casing size: 4 1/2 # of casing joints ran: 228 Casing set MD: 9,599.0 # sx of cement: 525+1160=1685 Cement blend (ppg:) 12.4/14.3 Cement yield (ft3/sk): 2.03/1.25 Est. TOC (Lead & Tail) or 2 Stage : LEAD-900', TAIL 4250' Describe cement issues: NONE Describe hole issues: NONE DIRECTIONAL INFO: KOP: 151 Max angle: 5.47@2699' Departure: 255@5604 Max dogleg MD: 2.83@4189
1/5/2011	-							

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010	
Project: UTAH-UINTAH	Site: NBU 921-25I PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 3/14/2011		End Date: 3/30/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/15/2011	7:00 - 15:00	8.00	COMP	37	B	P		PSI TEST CSG & BOTH FRAC VALVES & SUFACE CSG AS PER PROCEDURE. PERF STG 1)PU 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH PERF F/ 9380'-82', 3 SPF, 6 HOLES. 9364'-66', 3 SPF, 6 HOLES. 9337'-38', 3 SPF 3 HOLES. 9286'-87', 3 SPF, 3 HOLES. 9219'-20', 3 SPF, 3 HOLES. 21 HOLES. POOH. SWIFN.
3/17/2011	8:10 - 18:00	9.83	COMP	36	B	P		FRAC STAGE 1) WHP 1520 PSI, BRK 3672 PSI @ 10.7 BPM. ISIP 2936 PSI, FG .75. PUMP 100 BBLS @ 48.1 BPM @ 5559 PSI = 100% HOLES OPEN. ISIP 2863 PSI, FG .75, NPI -73 PSI. MP 6676 PSI, MR 52.4 BPM, AP 5784 PSI, AR 46.7 BPM, PMP 810 BBLS SW & 17,291 LBS OF 30/50 SND & 5,886 LBS OF 20/40 SLC SND. TOTAL PROP 23177 LBS SWI. X OVER FOR WIRELINE PERF STAGE 2) PU 4 1/2" 8 K HAL CBP AND 3 3/8" EXP GUNS 23 GM 0.36 HOLE SIZE. 90 DEGREE PHASING. RIH AND SET CBP AT 9168 PERF FROM: 9097-98. 4 SPF. 4 HOLES 9071-72. 4 SPF. 4 HOLES 9042-43. 4 SPF. 4 HOLES 8934-35. 4 SPF. 4 HOLES 8906-07. 4 SPF. 4 HOLES 8899-8900. 4 SPF. 4 HOLES. 24 HOLES TOTAL. POOH, X-OVER FOR FRAC CREW. FRAC STG 2)GROUND VALVE REALY HARD T/ OPEN. HAD T/ BRK GROUND VALVE OUT & REPLACE IT W/ 2' JT OF HARD LINE. WHP 2050 PSI, BRK 3724 PSI @ 4.6 BPM. ISIP 2519 PSI, FG .72. PUMP 100 BBLS @ 39.3 BPM @ 6052 PSI = 60% HOLES OPEN. ISIP 2848 PSI, FG .76, NPI 329 PSI. MP 6730 PSI, MR 50 BPM, AP 6110 PSI, AR 43.8 BPM, PMP 812 BBLS SW & 25,091 LBS OF 30/50 SND & 4,861 LBS OF 20/40 SLC SND. TOTAL PROP 29,952 LBS. SWI, X-OVER FOR WL. PERF STG 3)PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8861' P/U PERF F/ 8830'-31', 3 SPF, 3 HOLES. 8774'-75', 3 SPF, 3 HOLES. 8762'-64', 3 SPF, 6 HOLES. 8704'-05', 3 SPF, 3 HOLES. 8662'-64', 3 SPF, 6 HOLES. 8623'-24', 3 SPF, 3 HOLES. 24 HOLES. POOH. SWIFN.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010
Project: UTAH-UINTAH	Site: NBU 921-25I PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 3/14/2011	End Date: 3/30/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/18/2011	9:30 - 18:00	8.50	COMP	36	B	P		FRAC STG 3)WHP 1782 PSI, BRK 4173 PSI @ 4.6 BPM. ISIP 2658 PSI, FG .74. PUMP 100 BBLS @ 50 BPM @ 6403 PSI = 76% HOLES OPEN. ISIP 2713 PSI, FG .75, NPI 55 PSI. MP 6525 PSI, MR 52 BPM, AP 5427 PSI, AR 50.8 BPM, PMP 1560 BBLS SW & 58,909 LBS OF 30/50 SND & 4,273 LBS OF 20/40 SLC SND. TOTAL PROP 63,182 LBS. SWI, X-OVER FOR WL. ((INLINE & BLENDER WERE RUNNING ABOUT .50 # HIGH.)) PERF STG 4)PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8602' P/U PERF F/ 8570'-72', 3 SPF, 6 HOLES. 8546'-48', 3 SPF, 6 HOLES. 8461'-62', 3 SPF, 6 HOLES. SET CBP & 3 GUNS. NEXT GUN MISSFIRED. POOH T/ MAKE REPAIRS. MAKE REPAIRS RIH FINISH PERF LAST 3 GUNS. 8352'-53', 3 SPF, 3 HOLES. 8332'-33', 3 SPF, 3 HOLES. 8315'-16', 3 SPF, 3 HOLES. 24 HOLES. POOH, X-OVER FOR FRAC CREW. FRAC STG 4)WHP 1583 PSI, BRK 3472 PSI @ 4.8 BPM. ISIP 2164 PSI, FG .69. PUMP 100 BBLS @ 50.8 BPM @ 5525 PSI = 84% HOLES OPEN. ISIP 2593 PSI, FG .75, NPI 429 PSI. MP 6480 PSI, MR 51.4 BPM, AP 5129 PSI, AR 50.2 BPM, PMP 1609 BBLS SW & 60,533 LBS OF 30/50 SND & 4933 LBS OF 20/40 SLC SND. TOTAL PROP 65,466 LBS. SWI, X-OVER FOR WL. PERF STG 5)PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8260' P/U PERF F/ 8178'-80', 3 SPF, 6 HOLES. 8051'-52', 3 SPF, 3 HOLES. 7959'-62', 3 SPF, 9 HOLES. 7938'-39', 3 SPF, 3 HOLES. 21 HOLES. POOH. X-OVER FOR FRAC CREW. FRAC STG 5)WHP 1550 PSI, BRK 2523 PSI @ 4.5 BPM. ISIP 1721 PSI, FG .65. PUMP 100 BBLS @ 49.2 BPM @ 6295 PSI = 71% HOLES OPEN. ISIP 2508 PSI, FG .75, NPI 787 PSI. MP 6348 PSI, MR 53 BPM, AP 5520 PSI, AR 51.5 BPM, PMP 921 BBLS SW & 29,119 LBS OF 30/50 SND & 4816 LBS OF 20/40 SLC SND. TOTAL PROP 33,935 LBS. SWIFN. PERF STG 6 IN THE :AM.
3/19/2011	6:30 - 6:45	0.25	COMP	48		P		HSM,

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010	
Project: UTAH-UINTAH	Site: NBU 921-25I PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 3/14/2011		End Date: 3/30/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:45 - 6:45	0.00	COMP	36	E	P		PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,884', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. 7,822'-7,824' 3 SPF, 120* PH, 6 HOLES. 7,796'-7,798' 3 SPF, 120* PH, 6 HOLES. 7,772'-7,774' 3 SPF, 120* PH, 6 HOLES. 7,620'-7,622' 3 SPF, 120* PH, 6 HOLES. [24 HOLES] FRAC STG #6] WHP=1,067#, BRK DN PERFS=2,712#, @=4.8 BPM, INJ RT=49.6, INJ PSI=5,396#, ISIP=1,897#, FG=.68, PUMP'D 1,097 BBLS SLK WTR W/ 37,345# 30/50 MESH W/ 5,233# RESIN COAT IN TAIL, 42,578# TOTAL PROP. ISIP=2,351#, FG=74., AR=50, AP=4,540#, MR=50.5, MP=5,476#, NPI=545# 18/24 CALC PERFS OPEN. 76% PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. 7,432'-7.434' 4 SPF, 90* PH, 8 HOLES. 7,420'-7,422' 4 SPF, 90* PH, 8 HOLES. 7,408'-7,410' 4 SPF, 90* PH, 8 HOLES. [24 HOLES] FRAC STG #7] WHP=905#, BRK DN PERFS=2265#, @=4.3 BPM, INJ RT=46.9, INJ PSI=4,730#, ISIP=1,205#, FG=.60, PUMP'D 1,583 BBLS SLK WTR W/ 60.004# 30/50 MESH W/ 4,921# RESIN COAT IN TAIL, 64, ISIP=2,319#, FG=.75, AR=51., AP=4,259#, MR=51.7, MP=5,006#, NPI=1,114# 17/24 CALC PERFS OPEN. 70% P/U RIH W/ HALIBURTON 8K CBP, SET @=7,358 TOTAL BBLS=8,392 TOTAL SAND=323,215# 831 GALS SCALE INHIB 165 GALS BIOECIDE
3/29/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, PU TBG, RABBIT, RU POWER SWIVEL.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010
Project: UTAH-UINTAH	Site: NBU 921-25I PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 3/14/2011	End Date: 3/30/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 16:00	8.75	COMP	31	I	P		MIRU, ND WH, NU BOP, INSTAL CAGE OVER WH ON 25ii2AS, RU FLOOR & TBG EQUIP, SPOT TBG TRAILER, TALLY & PU TBG TO 7,300', INSTAL STRIPPING RUBBER, RU POWER SWIVEL. FILL TBG & BREAK CIRC, PRESS TEST BOP TO 3,000 PSI, START DRLG PLUGS. ALL SURFACE CSG VAVLES OPEN TO ATMOSPHERE W/ LOCKS ON THEM. C/O 15' SAND, TAG 1ST PLUG @ 7,358' DRL PLUG IN 7 MIN. 450 PSI INCREASE RIH, CSG PRESS 0 PSI. C/O 30' SAND, TAG 2ND PLUG @ 7,534' DRL PLUG IN 6 MIN. 300 PSI INCREASE RIH, CSG PRESS 50 PSI. C/O 35' SAND, TAG 3RD PLUG @ 7,884' DRL PLUG IN 8 MIN. 450 PSI INCREASE RIH, CSG PRESS 150 PSI. C/O 30' SAND, TAG 4TH PLUG @ 8,210' DRL PLUG IN 9 MIN. 400 PSI INCREASE RIH, CSG PRESS 500 PSI. LET WELL FLOW & CLEAN UP FOR 20 MINUTES, EOT @ 8,255', WILL FINISH DRLG PLUGS IN AM, SWI & CHECKED FOR LEAKS, SDFN. NOTE: NBU 921-25H4DS (RED WELL) CSG PRESS 620 PSI, OPEN WELL TO PIT AFTER 10 MINUTES STILL FLOWING 1/2 BPM, SWI, ND WH, NU FRAC VALVE TO RUN KILL PLUG IN WELL IN AM.
3/30/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, BLEEDING PRESS OFF WELL, D/O PLUGS, LAND TBG.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-25I3AS BLUE	Spud Conductor: 11/17/2010	Spud Date: 11/22/2010	
Project: UTAH-UINTAH	Site: NBU 921-25I PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 3/14/2011		End Date: 3/30/2011
Active Datum: RKB @5,005.00ft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/25/0/0/6/PM/S/2,064.00/E/0/689.00/0/0		

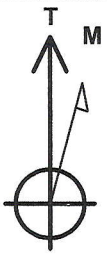
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 12:00	4.75	COMP	44	C	P		SICP 2,550 PSI, OPEN WELL TO PIT BLEED DOWN PRESS, OPEN RAMS, START DRLG PLUGS. C/O 20' SAND, TAG 5TH PLUG @ 8,602' DRL PLUG IN 8 MIN. 400 PSI INCREASE RIH, CSG PRESS 450 PSI. C/O 50' SAND, TAG 6TH PLUG @ 8,861' DRL PLUG IN 7 MIN. 350 PSI INCREASE RIH, CSG PRESS 300 PSI. C/O 30' SAND, TAG 7TH PLUG @ 9,130' DRL PLUG IN 6 MIN. 400 PSI INCREASE RIH, CSG PRESS 500 PSI. PBTD 9,555', BTM PERF @ 9,382', TAGGED @ 9,420', C/O TO 9,486', 104' PAST BTM PERF, W/ 299 JTS 2 3/8" L-80 TBG CIRC WELL FOR 10 MINUTES, LD 19 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 280 JTS 2 3/8" L-80, EOT 8,885.41'. RD POWER SWIVEL, RD FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 2,700 PSI, LET BIT FALL FOR 20 MIN. TURN OVER TO FLOW BACK CREW. RD & MOVE TO NBU 921-25H3DS, SDFN. KB= 25' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 315 JTS 280 JTS 2 3/8" L-80 = 8,885.41' TBG USED 280 JTS POBS= 2.20' TBG RETURNED 35 JTS EOT @ 8,885.41' SN @ 8,883.21' TWTR= 8,413 BBLS TWR= 1,200 BBLS TWLTR= 7,213 BBLS CALLED CDC TALKED TO JUNIOR
	12:15 - 12:15	0.00	PROD	50				WELL TURNED TO SALES @ 12:15 HR ON 3/30/11 - 1000 MCFD, 1920 BWPD, FTP 2550, CP 2600#, CK 20/64"
3/31/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 3250#, TP 2450#, 20/64" CK, 55 BWPH, 1/4 C SAND, - GAS TTL BBLS RECOVERED: 2430 BBLS LEFT TO RECOVER: 5983
4/1/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 3250#, TP 2300#, 20/64" CK, 40 BWPH, 1/8 C SAND, - GAS TTL BBLS RECOVERED: 3535 BBLS LEFT TO RECOVER: 4878
4/2/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 3000#, TP 2250#, 20/64" CK, 30 BWPH, TSP SAND, - GAS TTL BBLS RECOVERED: 4335 BBLS LEFT TO RECOVER: 4078
4/3/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2900#, TP 2150#, 20/64" CK, 21 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 4929 BBLS LEFT TO RECOVER: 3484

Scientific Drilling
Rocky Mountain Operations

Site: NBU 921-25I Pad
Well: NBU 921-25I3AS
Wellbore: OH
Design: OH

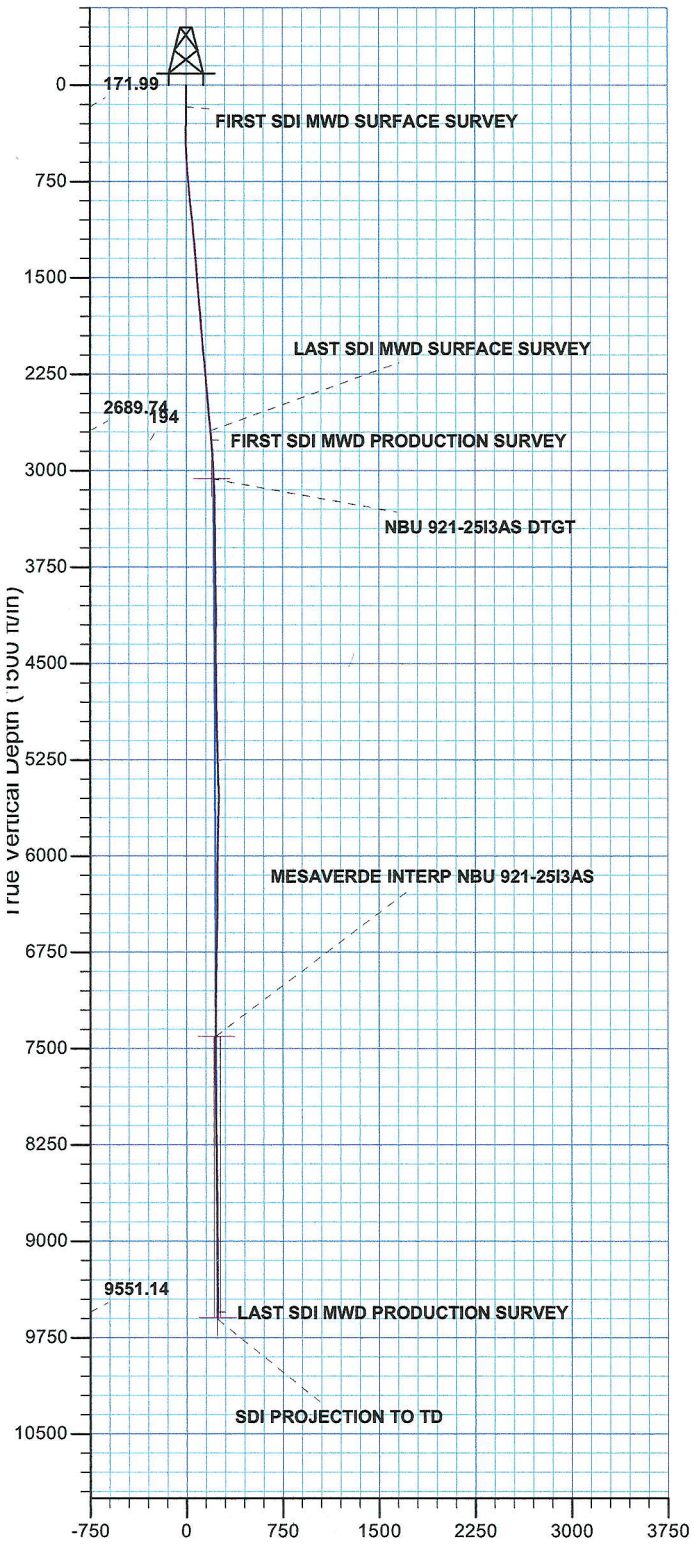
Anadarko Petroleum Corporation

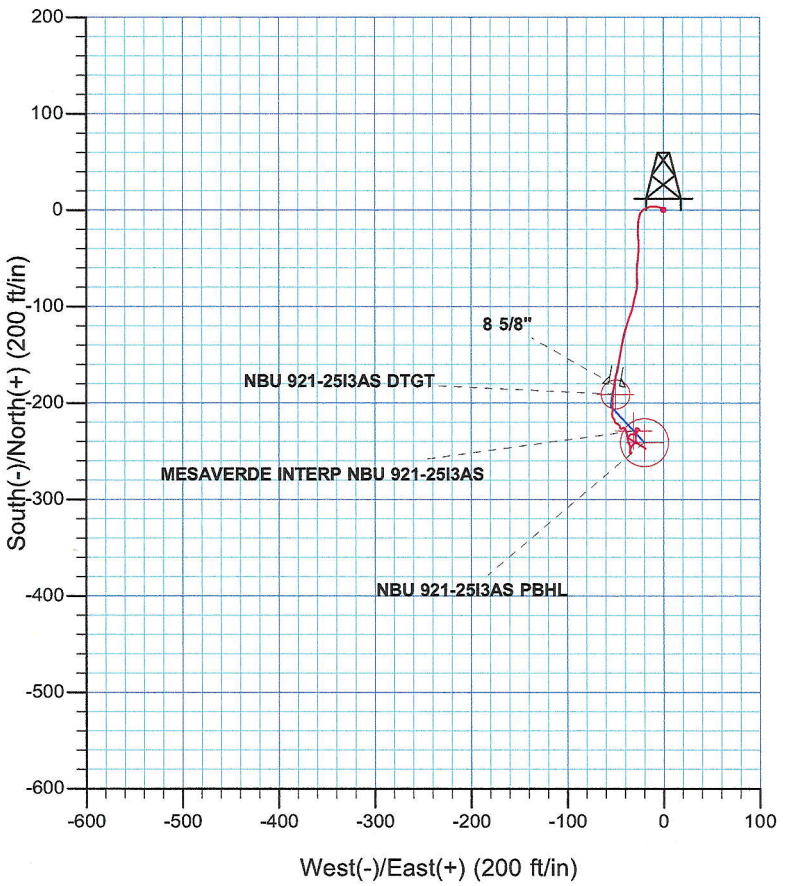
WELL DETAILS: NBU 921-25I3AS					
GL 4980' & RKB 25' @ 5005.00ft (H&P 311)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14531594.51	2062599.81	40° 0' 19.566 N	109° 29' 32.741 W



Azimuths to True North
Magnetic North: 11.15°

Magnetic Field
Strength: 52389.6snT
Dip Angle: 65.89°
Date: 11/19/2010
Model: IGRF2010





PROJECT DETAILS: Uintah County, UT UTM12	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 - Western US
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SEC 25 T9S R21E
System Datum:	Mean Sea Level

Design: OH (NBU 921-25I3AS/OH)

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 921-25I Pad
NBU 921-25I3AS

OH

Design: OH

Standard Survey Report

13 January, 2011

Anadarko
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-25I Pad, SEC 25 T9S R21E				
Site Position:		**Northing:**	14,531,604.32 usft	**Latitude:**	40° 0' 19.663 N
From:	Lat/Long	**Easting:**	2,062,597.96 usft	**Longitude:**	109° 29' 32.762 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.97 °

Well	NBU 921-25I3AS, 2045' FSL 686' FEL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	14,531,594.51 usft	**Latitude:**	40° 0' 19.566 N
	+E/-W	0.00 ft	**Easting:**	2,062,599.81 usft	**Longitude:**	109° 29' 32.741 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,980.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	11/19/2010	11.15	65.89	52,390

Design	OH					
Audit Notes:						
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**		0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**		
	0.00	0.00	0.00	195.82		

Survey Program **Date** 01/13/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
21.00	2,699.00	Survey #1 SDI SURFACE MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,773.00	9,620.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00
172.00	0.96	87.62	171.99	0.05	1.26	-0.40	0.64	0.64	0.00
FIRST SDI MWD SURFACE SURVEY									
370.00	2.89	292.89	369.92	2.06	-1.68	-1.53	1.91	0.97	-78.15
459.00	4.40	281.07	458.74	3.59	-7.10	-1.52	1.89	1.70	-13.28
549.00	4.77	260.43	548.46	3.63	-14.17	0.37	1.87	0.41	-22.93
639.00	5.26	228.15	638.13	0.26	-20.94	5.46	3.14	0.54	-35.87
729.00	5.39	195.22	727.77	-6.58	-25.12	13.17	3.35	0.14	-36.59
819.00	5.19	181.71	817.39	-14.72	-26.35	21.35	1.40	-0.22	-15.01

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
909.00	5.68	179.30	906.98	-23.25	-26.42	29.57	0.60	0.54	-2.68
999.00	6.33	177.57	996.49	-32.66	-26.16	38.55	0.75	0.72	-1.92
1,089.00	5.96	181.07	1,085.97	-42.28	-26.03	47.78	0.58	-0.41	3.89
1,179.00	5.82	187.37	1,175.50	-51.48	-26.71	56.81	0.73	-0.16	7.00
1,269.00	5.41	183.39	1,265.06	-60.24	-27.54	65.47	0.63	-0.46	-4.42
1,359.00	4.66	177.28	1,354.72	-68.13	-27.62	73.08	1.02	-0.83	-6.79
1,449.00	4.55	178.46	1,444.43	-75.35	-27.35	79.95	0.16	-0.12	1.31
1,539.00	4.48	192.58	1,534.15	-82.35	-28.02	86.87	1.23	-0.08	15.69
1,629.00	4.80	194.47	1,623.86	-89.43	-29.73	94.14	0.39	0.36	2.10
1,719.00	5.18	190.17	1,713.51	-97.07	-31.38	101.95	0.59	0.42	-4.78
1,809.00	4.53	197.87	1,803.19	-104.45	-33.19	109.55	1.02	-0.72	8.56
1,899.00	4.53	201.04	1,892.91	-111.15	-35.56	116.64	0.28	0.00	3.52
1,989.00	4.86	197.60	1,982.61	-118.10	-37.99	123.99	0.48	0.37	-3.82
2,079.00	5.12	193.84	2,072.27	-125.64	-40.10	131.81	0.46	0.29	-4.18
2,169.00	5.45	191.04	2,161.89	-133.73	-41.88	140.08	0.47	0.37	-3.11
2,259.00	4.94	191.21	2,251.52	-141.73	-43.45	148.21	0.57	-0.57	0.19
2,349.00	5.03	190.19	2,341.18	-149.41	-44.90	155.99	0.14	0.10	-1.13
2,439.00	5.16	188.99	2,430.82	-157.29	-46.23	163.94	0.19	0.14	-1.33
2,529.00	5.14	193.27	2,520.46	-165.21	-47.79	171.99	0.43	-0.02	4.76
2,619.00	5.22	192.72	2,610.09	-173.13	-49.62	180.10	0.10	0.09	-0.61
2,699.00	5.47	190.43	2,689.74	-180.43	-51.11	187.53	0.41	0.31	-2.86
LAST SDI MWD SURFACE SURVEY									
2,773.00	5.24	186.51	2,763.42	-187.26	-52.13	194.38	0.58	-0.31	-5.30
FIRST SDI MWD PRODUCTION SURVEY									
2,867.00	4.75	182.08	2,857.06	-195.41	-52.76	202.39	0.66	-0.52	-4.71
2,962.00	4.04	180.76	2,951.78	-202.69	-52.95	209.45	0.75	-0.75	-1.39
3,056.00	2.29	185.07	3,045.63	-207.87	-53.16	214.49	1.88	-1.86	4.59
3,151.00	2.02	193.25	3,140.57	-211.39	-53.71	218.03	0.43	-0.28	8.61
3,245.00	1.49	139.10	3,234.53	-213.93	-53.29	220.35	1.77	-0.56	-57.61
3,339.00	1.49	154.66	3,328.50	-215.96	-51.96	221.94	0.43	0.00	16.55
3,434.00	0.18	36.18	3,423.49	-216.95	-51.35	222.73	1.67	-1.38	-124.72
3,528.00	0.35	148.95	3,517.49	-217.08	-51.11	222.79	0.48	0.18	119.97
3,623.00	0.79	169.16	3,612.48	-217.97	-50.84	223.58	0.50	0.46	21.27
3,717.00	1.23	176.46	3,706.47	-219.61	-50.66	225.11	0.49	0.47	7.77
3,812.00	1.49	100.70	3,801.45	-220.86	-49.38	225.96	1.77	0.27	-79.75
3,906.00	1.23	128.29	3,895.42	-221.71	-47.39	226.24	0.74	-0.28	29.35
4,000.00	1.58	149.92	3,989.39	-223.46	-45.94	227.52	0.67	0.37	23.01
4,095.00	1.85	168.28	4,084.35	-226.10	-44.98	229.79	0.64	0.28	19.33
4,189.00	1.32	55.43	4,178.33	-226.97	-43.78	230.31	2.83	-0.56	-120.05
4,284.00	0.88	57.37	4,273.31	-225.95	-42.26	228.92	0.46	-0.46	2.04
4,378.00	0.35	108.08	4,367.31	-225.65	-41.38	228.39	0.76	-0.56	53.95
4,472.00	0.88	137.43	4,461.30	-226.27	-40.62	228.78	0.64	0.56	31.22
4,567.00	0.97	141.74	4,556.29	-227.44	-39.63	229.63	0.12	0.09	4.54

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,661.00	0.97	162.13	4,650.28	-228.82	-38.89	230.76	0.37	0.00	21.69
4,756.00	1.32	169.69	4,745.26	-230.67	-38.45	232.41	0.40	0.37	7.96
4,850.00	1.14	171.10	4,839.24	-232.65	-38.11	234.23	0.19	-0.19	1.50
4,944.00	1.23	171.80	4,933.22	-234.58	-37.82	236.00	0.10	0.10	0.74
5,038.00	1.41	166.88	5,027.19	-236.70	-37.41	237.94	0.23	0.19	-5.23
5,133.00	1.85	166.97	5,122.15	-239.33	-36.80	240.30	0.46	0.46	0.09
5,227.00	1.93	163.63	5,216.10	-242.33	-36.02	242.97	0.14	0.09	-3.55
5,322.00	2.02	165.56	5,311.05	-245.49	-35.15	245.77	0.12	0.09	2.03
5,416.00	2.11	174.44	5,404.98	-248.81	-34.57	248.82	0.35	0.10	9.45
5,510.00	1.85	169.95	5,498.93	-252.03	-34.13	251.79	0.32	-0.28	-4.78
5,604.00	0.62	318.58	5,592.92	-253.14	-34.21	252.88	2.55	-1.31	158.12
5,699.00	1.49	337.65	5,687.90	-251.62	-35.02	251.63	0.98	0.92	20.07
5,793.00	2.11	21.24	5,781.86	-248.87	-34.85	248.95	1.55	0.66	46.37
5,887.00	1.93	26.17	5,875.80	-245.84	-33.53	245.67	0.27	-0.19	5.24
5,982.00	1.41	43.74	5,970.76	-243.56	-32.01	243.06	0.76	-0.55	18.49
6,076.00	1.14	50.07	6,064.73	-242.12	-30.50	241.27	0.32	-0.29	6.73
6,170.00	0.79	71.52	6,158.72	-241.32	-29.17	240.13	0.53	-0.37	22.82
6,265.00	0.97	97.80	6,253.71	-241.22	-27.75	239.65	0.46	0.19	27.66
6,359.00	0.70	301.35	6,347.71	-241.03	-27.45	239.38	1.74	-0.29	-166.44
6,453.00	0.62	266.37	6,441.70	-240.76	-28.45	239.40	0.43	-0.09	-37.21
6,548.00	1.41	359.53	6,536.69	-239.62	-28.97	238.45	1.65	0.83	98.06
6,642.00	1.06	357.34	6,630.67	-237.60	-29.02	236.51	0.38	-0.37	-2.33
6,736.00	0.53	34.16	6,724.66	-236.37	-28.82	235.28	0.76	-0.56	39.17
6,831.00	1.76	349.87	6,819.64	-234.57	-28.83	233.55	1.50	1.29	-46.62
6,925.00	1.32	344.86	6,913.60	-232.11	-29.36	231.32	0.49	-0.47	-5.33
7,020.00	0.88	348.37	7,008.59	-230.33	-29.80	229.74	0.47	-0.46	3.69
7,114.00	0.53	15.09	7,102.58	-229.21	-29.83	228.66	0.50	-0.37	28.43
7,208.00	0.62	29.68	7,196.58	-228.35	-29.46	227.73	0.18	0.10	15.52
7,303.00	0.62	25.11	7,291.57	-227.43	-28.99	226.73	0.05	0.00	-4.81
7,398.00	0.62	36.36	7,386.56	-226.56	-28.47	225.74	0.13	0.00	11.84
7,492.00	0.70	68.88	7,480.56	-225.94	-27.63	224.92	0.40	0.09	34.60
7,586.00	1.23	129.79	7,574.55	-226.38	-26.32	224.98	1.15	0.56	64.80
7,680.00	0.96	161.99	7,668.53	-227.77	-25.30	226.05	0.70	-0.29	34.26
7,775.00	0.79	264.17	7,763.52	-228.60	-25.71	226.95	1.44	-0.18	107.56
7,869.00	0.79	224.18	7,857.52	-229.13	-26.80	227.76	0.57	0.00	-42.54
7,964.00	1.06	209.42	7,952.50	-230.36	-27.69	229.19	0.38	0.28	-15.54
8,058.00	1.06	203.09	8,046.49	-231.92	-28.46	230.90	0.12	0.00	-6.73
8,153.00	1.58	280.78	8,141.47	-232.48	-30.09	231.88	1.79	0.55	81.78
8,247.00	0.97	269.36	8,235.44	-232.25	-32.16	232.22	0.70	-0.65	-12.15
8,342.00	0.79	250.11	8,330.43	-232.48	-33.58	232.83	0.36	-0.19	-20.26
8,436.00	0.88	233.06	8,424.42	-233.13	-34.77	233.78	0.28	0.10	-18.14
8,531.00	0.97	217.06	8,519.41	-234.21	-35.83	235.11	0.29	0.09	-16.84
8,625.00	1.06	209.77	8,613.40	-235.60	-36.74	236.70	0.17	0.10	-7.76
8,720.00	0.53	127.42	8,708.39	-236.63	-36.83	237.71	1.18	-0.56	-86.68

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00	1.14	97.27	8,788.38	-236.96	-35.75	237.73	0.91	0.76	-37.69
9,563.00	1.80	135.50	9,551.14	-246.47	-19.82	242.54	0.15	0.09	5.01
LAST SDI MWD PRODUCTION SURVEY									
9,620.00	1.80	135.50	9,608.11	-247.74	-18.57	243.43	0.00	0.00	0.00
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
172.00	171.99	0.05	1.26	FIRST SDI MWD SURFACE SURVEY
2,699.00	2,689.74	-180.43	-51.11	LAST SDI MWD SURFACE SURVEY
2,773.00	2,763.42	-187.26	-52.13	FIRST SDI MWD PRODUCTION SURVEY
9,563.00	9,551.14	-246.47	-19.82	LAST SDI MWD PRODUCTION SURVEY
9,620.00	9,608.11	-247.74	-18.57	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 921-25I Pad
NBU 921-25I3AS

OH

Design: OH

Survey Report - Geographic

13 January, 2011

Anadarko
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-25I Pad, SEC 25 T9S R21E				
Site Position:		**Northing:**	14,531,604.32 usft	**Latitude:**	40° 0' 19.663 N
From:	Lat/Long	**Easting:**	2,062,597.96 usft	**Longitude:**	109° 29' 32.762 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.97 °

Well	NBU 921-25I3AS, 2045' FSL 686' FEL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	14,531,594.51 usft	**Latitude:**	40° 0' 19.566 N
	+E/-W	0.00 ft	**Easting:**	2,062,599.81 usft	**Longitude:**	109° 29' 32.741 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,980.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	11/19/2010	11.15	65.89	52,390

Design	OH				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	195.82	

Survey Program **Date** 01/13/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
21.00	2,699.00	Survey #1 SDI SURFACE MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,773.00	9,620.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,531,594.51	2,062,599.81	40° 0' 19.566 N	109° 29' 32.741 W
21.00	0.00	0.00	21.00	0.00	0.00	14,531,594.51	2,062,599.81	40° 0' 19.566 N	109° 29' 32.741 W
172.00	0.96	87.62	171.99	0.05	1.26	14,531,594.59	2,062,601.07	40° 0' 19.567 N	109° 29' 32.725 W
FIRST SDI MWD SURFACE SURVEY									
370.00	2.89	292.89	369.92	2.06	-1.68	14,531,596.55	2,062,598.09	40° 0' 19.586 N	109° 29' 32.762 W
459.00	4.40	281.07	458.74	3.59	-7.10	14,531,597.98	2,062,592.65	40° 0' 19.602 N	109° 29' 32.832 W
549.00	4.77	260.43	548.46	3.63	-14.17	14,531,597.91	2,062,585.57	40° 0' 19.602 N	109° 29' 32.923 W
639.00	5.26	228.15	638.13	0.26	-20.94	14,531,594.42	2,062,578.87	40° 0' 19.569 N	109° 29' 33.010 W
729.00	5.39	195.22	727.77	-6.58	-25.12	14,531,587.51	2,062,574.80	40° 0' 19.501 N	109° 29' 33.064 W
819.00	5.19	181.71	817.39	-14.72	-26.35	14,531,579.35	2,062,573.70	40° 0' 19.420 N	109° 29' 33.080 W
909.00	5.68	179.30	906.98	-23.25	-26.42	14,531,570.82	2,062,573.78	40° 0' 19.336 N	109° 29' 33.080 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
999.00	6.33	177.57	996.49	-32.66	-26.16	14,531,561.42	2,062,574.21	40° 0' 19.243 N	109° 29' 33.077 W
1,089.00	5.96	181.07	1,085.97	-42.28	-26.03	14,531,551.79	2,062,574.49	40° 0' 19.148 N	109° 29' 33.075 W
1,179.00	5.82	187.37	1,175.50	-51.48	-26.71	14,531,542.59	2,062,573.97	40° 0' 19.057 N	109° 29' 33.084 W
1,269.00	5.41	183.39	1,265.06	-60.24	-27.54	14,531,533.81	2,062,573.29	40° 0' 18.971 N	109° 29' 33.095 W
1,359.00	4.66	177.28	1,354.72	-68.13	-27.62	14,531,525.93	2,062,573.34	40° 0' 18.893 N	109° 29' 33.096 W
1,449.00	4.55	178.46	1,444.43	-75.35	-27.35	14,531,518.71	2,062,573.73	40° 0' 18.821 N	109° 29' 33.092 W
1,539.00	4.48	192.58	1,534.15	-82.35	-28.02	14,531,511.70	2,062,573.18	40° 0' 18.752 N	109° 29' 33.101 W
1,629.00	4.80	194.47	1,623.86	-89.43	-29.73	14,531,504.60	2,062,571.60	40° 0' 18.682 N	109° 29' 33.123 W
1,719.00	5.18	190.17	1,713.51	-97.07	-31.38	14,531,496.92	2,062,570.07	40° 0' 18.607 N	109° 29' 33.144 W
1,809.00	4.53	197.87	1,803.19	-104.45	-33.19	14,531,489.51	2,062,568.39	40° 0' 18.534 N	109° 29' 33.167 W
1,899.00	4.53	201.04	1,892.91	-111.15	-35.56	14,531,482.77	2,062,566.13	40° 0' 18.467 N	109° 29' 33.198 W
1,989.00	4.86	197.60	1,982.61	-118.10	-37.99	14,531,475.78	2,062,563.82	40° 0' 18.399 N	109° 29' 33.229 W
2,079.00	5.12	193.84	2,072.27	-125.64	-40.10	14,531,468.22	2,062,561.84	40° 0' 18.324 N	109° 29' 33.256 W
2,169.00	5.45	191.04	2,161.89	-133.73	-41.88	14,531,460.09	2,062,560.19	40° 0' 18.244 N	109° 29' 33.279 W
2,259.00	4.94	191.21	2,251.52	-141.73	-43.45	14,531,452.07	2,062,558.76	40° 0' 18.165 N	109° 29' 33.299 W
2,349.00	5.03	190.19	2,341.18	-149.41	-44.90	14,531,444.36	2,062,557.44	40° 0' 18.089 N	109° 29' 33.318 W
2,439.00	5.16	188.99	2,430.82	-157.29	-46.23	14,531,436.46	2,062,556.24	40° 0' 18.011 N	109° 29' 33.335 W
2,529.00	5.14	193.27	2,520.46	-165.21	-47.79	14,531,428.51	2,062,554.82	40° 0' 17.933 N	109° 29' 33.355 W
2,619.00	5.22	192.72	2,610.09	-173.13	-49.62	14,531,420.57	2,062,553.12	40° 0' 17.855 N	109° 29' 33.379 W
2,699.00	5.47	190.43	2,689.74	-180.43	-51.11	14,531,413.24	2,062,551.76	40° 0' 17.783 N	109° 29' 33.398 W
LAST SDI MWD SURFACE SURVEY									
2,773.00	5.24	186.51	2,763.42	-187.26	-52.13	14,531,406.40	2,062,550.85	40° 0' 17.715 N	109° 29' 33.411 W
FIRST SDI MWD PRODUCTION SURVEY									
2,867.00	4.75	182.08	2,857.06	-195.41	-52.76	14,531,398.24	2,062,550.36	40° 0' 17.634 N	109° 29' 33.419 W
2,962.00	4.04	180.76	2,951.78	-202.69	-52.95	14,531,390.96	2,062,550.30	40° 0' 17.563 N	109° 29' 33.421 W
3,056.00	2.29	185.07	3,045.63	-207.87	-53.16	14,531,385.77	2,062,550.17	40° 0' 17.511 N	109° 29' 33.424 W
3,151.00	2.02	193.25	3,140.57	-211.39	-53.71	14,531,382.24	2,062,549.68	40° 0' 17.477 N	109° 29' 33.431 W
3,245.00	1.49	139.10	3,234.53	-213.93	-53.29	14,531,379.71	2,062,550.15	40° 0' 17.451 N	109° 29' 33.426 W
3,339.00	1.49	154.66	3,328.50	-215.96	-51.96	14,531,377.71	2,062,551.50	40° 0' 17.431 N	109° 29' 33.409 W
3,434.00	0.18	36.18	3,423.49	-216.95	-51.35	14,531,376.72	2,062,552.14	40° 0' 17.422 N	109° 29' 33.401 W
3,528.00	0.35	148.95	3,517.49	-217.08	-51.11	14,531,376.60	2,062,552.37	40° 0' 17.420 N	109° 29' 33.398 W
3,623.00	0.79	169.16	3,612.48	-217.97	-50.84	14,531,375.71	2,062,552.66	40° 0' 17.411 N	109° 29' 33.394 W
3,717.00	1.23	176.46	3,706.47	-219.61	-50.66	14,531,374.07	2,062,552.87	40° 0' 17.395 N	109° 29' 33.392 W
3,812.00	1.49	100.70	3,801.45	-220.86	-49.38	14,531,372.85	2,062,554.17	40° 0' 17.383 N	109° 29' 33.375 W
3,906.00	1.23	128.29	3,895.42	-221.71	-47.39	14,531,372.03	2,062,556.18	40° 0' 17.374 N	109° 29' 33.350 W
4,000.00	1.58	149.92	3,989.39	-223.46	-45.94	14,531,370.31	2,062,557.65	40° 0' 17.357 N	109° 29' 33.331 W
4,095.00	1.85	168.28	4,084.35	-226.10	-44.98	14,531,367.69	2,062,558.66	40° 0' 17.331 N	109° 29' 33.319 W
4,189.00	1.32	55.43	4,178.33	-226.97	-43.78	14,531,366.84	2,062,559.88	40° 0' 17.323 N	109° 29' 33.303 W
4,284.00	0.88	57.37	4,273.31	-225.95	-42.26	14,531,367.88	2,062,561.37	40° 0' 17.333 N	109° 29' 33.284 W
4,378.00	0.35	108.08	4,367.31	-225.65	-41.38	14,531,368.19	2,062,562.25	40° 0' 17.336 N	109° 29' 33.273 W
4,472.00	0.88	137.43	4,461.30	-226.27	-40.62	14,531,367.59	2,062,563.02	40° 0' 17.329 N	109° 29' 33.263 W
4,567.00	0.97	141.74	4,556.29	-227.44	-39.63	14,531,366.43	2,062,564.03	40° 0' 17.318 N	109° 29' 33.250 W
4,661.00	0.97	162.13	4,650.28	-228.82	-38.89	14,531,365.06	2,062,564.79	40° 0' 17.304 N	109° 29' 33.241 W
4,756.00	1.32	169.69	4,745.26	-230.67	-38.45	14,531,363.23	2,062,565.27	40° 0' 17.286 N	109° 29' 33.235 W
4,850.00	1.14	171.10	4,839.24	-232.65	-38.11	14,531,361.25	2,062,565.64	40° 0' 17.266 N	109° 29' 33.231 W
4,944.00	1.23	171.80	4,933.22	-234.58	-37.82	14,531,359.33	2,062,565.96	40° 0' 17.247 N	109° 29' 33.227 W
5,038.00	1.41	166.88	5,027.19	-236.70	-37.41	14,531,357.21	2,062,566.40	40° 0' 17.226 N	109° 29' 33.222 W
5,133.00	1.85	166.97	5,122.15	-239.33	-36.80	14,531,354.59	2,062,567.06	40° 0' 17.200 N	109° 29' 33.214 W
5,227.00	1.93	163.63	5,216.10	-242.33	-36.02	14,531,351.61	2,062,567.90	40° 0' 17.171 N	109° 29' 33.204 W
5,322.00	2.02	165.56	5,311.05	-245.49	-35.15	14,531,348.47	2,062,568.82	40° 0' 17.139 N	109° 29' 33.193 W
5,416.00	2.11	174.44	5,404.98	-248.81	-34.57	14,531,345.15	2,062,569.45	40° 0' 17.107 N	109° 29' 33.185 W
5,510.00	1.85	169.95	5,498.93	-252.03	-34.13	14,531,341.94	2,062,569.94	40° 0' 17.075 N	109° 29' 33.180 W
5,604.00	0.62	318.58	5,592.92	-253.14	-34.21	14,531,340.83	2,062,569.89	40° 0' 17.064 N	109° 29' 33.180 W
5,699.00	1.49	337.65	5,687.90	-251.62	-35.02	14,531,342.34	2,062,569.05	40° 0' 17.079 N	109° 29' 33.191 W
5,793.00	2.11	21.24	5,781.86	-248.87	-34.85	14,531,345.09	2,062,569.17	40° 0' 17.106 N	109° 29' 33.189 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-25I3AS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Site:	NBU 921-25I Pad	**MD Reference:**	GL 4980' & RKB 25' @ 5005.00ft (H&P 311)
Well:	NBU 921-25I3AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,887.00	1.93	26.17	5,875.80	-245.84	-33.53	14,531,348.14	2,062,570.44	40° 0' 17.136 N	109° 29' 33.172 W
5,982.00	1.41	43.74	5,970.76	-243.56	-32.01	14,531,350.45	2,062,571.92	40° 0' 17.159 N	109° 29' 33.152 W
6,076.00	1.14	50.07	6,064.73	-242.12	-30.50	14,531,351.91	2,062,573.41	40° 0' 17.173 N	109° 29' 33.133 W
6,170.00	0.79	71.52	6,158.72	-241.32	-29.17	14,531,352.74	2,062,574.73	40° 0' 17.181 N	109° 29' 33.116 W
6,265.00	0.97	97.80	6,253.71	-241.22	-27.75	14,531,352.86	2,062,576.14	40° 0' 17.182 N	109° 29' 33.097 W
6,359.00	0.70	301.35	6,347.71	-241.03	-27.45	14,531,353.06	2,062,576.44	40° 0' 17.184 N	109° 29' 33.094 W
6,453.00	0.62	266.37	6,441.70	-240.76	-28.45	14,531,353.31	2,062,575.43	40° 0' 17.186 N	109° 29' 33.106 W
6,548.00	1.41	359.53	6,536.69	-239.62	-28.97	14,531,354.43	2,062,574.89	40° 0' 17.197 N	109° 29' 33.113 W
6,642.00	1.06	357.34	6,630.67	-237.60	-29.02	14,531,356.46	2,062,574.81	40° 0' 17.217 N	109° 29' 33.114 W
6,736.00	0.53	34.16	6,724.66	-236.37	-28.82	14,531,357.69	2,062,574.99	40° 0' 17.230 N	109° 29' 33.111 W
6,831.00	1.76	349.87	6,819.64	-234.57	-28.83	14,531,359.49	2,062,574.95	40° 0' 17.247 N	109° 29' 33.111 W
6,925.00	1.32	344.86	6,913.60	-232.11	-29.36	14,531,361.94	2,062,574.37	40° 0' 17.272 N	109° 29' 33.118 W
7,020.00	0.88	348.37	7,008.59	-230.33	-29.80	14,531,363.71	2,062,573.91	40° 0' 17.289 N	109° 29' 33.124 W
7,114.00	0.53	15.09	7,102.58	-229.21	-29.83	14,531,364.83	2,062,573.86	40° 0' 17.300 N	109° 29' 33.124 W
7,208.00	0.62	29.68	7,196.58	-228.35	-29.46	14,531,365.70	2,062,574.21	40° 0' 17.309 N	109° 29' 33.119 W
7,303.00	0.62	25.11	7,291.57	-227.43	-28.99	14,531,366.62	2,062,574.67	40° 0' 17.318 N	109° 29' 33.113 W
7,398.00	0.62	36.36	7,386.56	-226.56	-28.47	14,531,367.51	2,062,575.17	40° 0' 17.327 N	109° 29' 33.107 W
7,492.00	0.70	68.88	7,480.56	-225.94	-27.63	14,531,368.14	2,062,576.00	40° 0' 17.333 N	109° 29' 33.096 W
7,586.00	1.23	129.79	7,574.55	-226.38	-26.32	14,531,367.72	2,062,577.32	40° 0' 17.328 N	109° 29' 33.079 W
7,680.00	0.96	161.99	7,668.53	-227.77	-25.30	14,531,366.35	2,062,578.36	40° 0' 17.315 N	109° 29' 33.066 W
7,775.00	0.79	264.17	7,763.52	-228.60	-25.71	14,531,365.52	2,062,577.97	40° 0' 17.306 N	109° 29' 33.071 W
7,869.00	0.79	224.18	7,857.52	-229.13	-26.80	14,531,364.97	2,062,576.88	40° 0' 17.301 N	109° 29' 33.085 W
7,964.00	1.06	209.42	7,952.50	-230.36	-27.69	14,531,363.72	2,062,576.02	40° 0' 17.289 N	109° 29' 33.097 W
8,058.00	1.06	203.09	8,046.49	-231.92	-28.46	14,531,362.15	2,062,575.27	40° 0' 17.274 N	109° 29' 33.107 W
8,153.00	1.58	280.78	8,141.47	-232.48	-30.09	14,531,361.56	2,062,573.65	40° 0' 17.268 N	109° 29' 33.128 W
8,247.00	0.97	269.36	8,235.44	-232.25	-32.16	14,531,361.75	2,062,571.58	40° 0' 17.270 N	109° 29' 33.154 W
8,342.00	0.79	250.11	8,330.43	-232.48	-33.58	14,531,361.50	2,062,570.16	40° 0' 17.268 N	109° 29' 33.172 W
8,436.00	0.88	233.06	8,424.42	-233.13	-34.77	14,531,360.82	2,062,568.99	40° 0' 17.262 N	109° 29' 33.188 W
8,531.00	0.97	217.06	8,519.41	-234.21	-35.83	14,531,359.73	2,062,567.94	40° 0' 17.251 N	109° 29' 33.201 W
8,625.00	1.06	209.77	8,613.40	-235.60	-36.74	14,531,358.32	2,062,567.05	40° 0' 17.237 N	109° 29' 33.213 W
8,720.00	0.53	127.42	8,708.39	-236.63	-36.83	14,531,357.29	2,062,566.98	40° 0' 17.227 N	109° 29' 33.214 W
8,800.00	1.14	97.27	8,788.38	-236.96	-35.75	14,531,356.98	2,062,568.07	40° 0' 17.224 N	109° 29' 33.200 W
9,563.00	1.80	135.50	9,551.14	-246.47	-19.82	14,531,347.75	2,062,584.16	40° 0' 17.130 N	109° 29' 32.996 W
LAST SDI MWD PRODUCTION SURVEY									
9,620.00	1.80	135.50	9,608.11	-247.74	-18.57	14,531,346.49	2,062,585.43	40° 0' 17.117 N	109° 29' 32.979 W
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
172.00	171.99	0.05	1.26	FIRST SDI MWD SURFACE SURVEY
2,699.00	2,689.74	-180.43	-51.11	LAST SDI MWD SURFACE SURVEY
2,773.00	2,763.42	-187.26	-52.13	FIRST SDI MWD PRODUCTION SURVEY
9,563.00	9,551.14	-246.47	-19.82	LAST SDI MWD PRODUCTION SURVEY
9,620.00	9,608.11	-247.74	-18.57	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By ANDY LYTLE Phone Number 720.929.6100
Well Name/Number NBU 921-25I3AS
Qtr/Qtr NESE Section 25 Township 9S Range 21E
Lease Serial Number UO-0868 ST
API Number 4304751273

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 11/17/2010 11:00 HRS AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☑ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

RECEIVED
NOV 15 2010
DIV. OF OIL, GAS & MINING

Date/Time 12/03/2010 08:00 HRS AM ☐ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time _____ _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT 435.828.0986 OR LOVEL YOUNG AT 435.781.7051